Efka dc15xx

CONTROL	dc15OO	AB221A5130
	dc155O	AB321A5230

LIST OF PARAMETERS

No. 402318   English

CONTENTS **Page**

1   Use of the C200 Compiler

The Efka C200 Compiler is a software tool for the programming of upgrade control functions.

The compiler provides the following basic functions:

- predetermined functions which are integrated by means of a system file
- approx. 2kB for user programs and data
- error management routine with automatic error marking
- loader for program storing in the control
- a multi-tasking time sharing mechanism
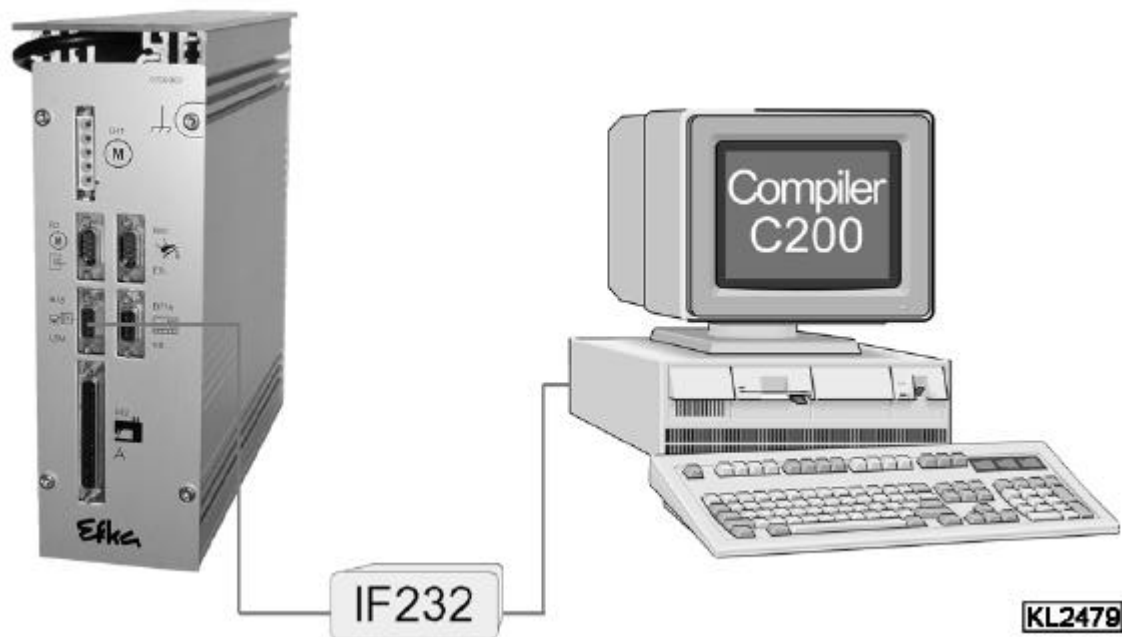
The control (socket B18) and the computer (socket com1) are connected by means of interface IF232-3.

Set of special C200 Compiler accessories consisting of: **order no. 1113262**
- **C200 Compiler Software CD-ROM**
- **C200 Compiler User Manual**
- **EFKANET IF232-3 Interface**

See C200 Compiler user manual for more information on programming and use of control commands!

2 Table of Adapter Cords

> **ATTENTION!**
> Before switching functional sequences, detach cables from the inputs and outputs! Please ensure that the machine installed provides the functional sequence to be set! Then proceed with the setting using parameter 290!

Setting the functional sequence using parameter 290

Mode	Designation	Adapter	FL ST2/35	VR ST2/34	M1 ST2/37	M2 ST2/28	M3 ST2/27	M4 ST2/36	M5 ST2/32	M6 ST2/30
	Power transistors →		**FL**	**VR**	**M1**	**M2**	**M3**	**M4**	**M5**	**M6**
0	**Lockstitch: e. g.**	**Functions**	**FL**	**VR**	**FA1**	**FA2**	**FW**	**FA1+2**	**ML**	**MST/HP**
	Brother (737-113, 737-913)	1112814	FL	VR	FA1 +	FA2	FW			
	Aisin (AD3XX, AD158, 3310; EK1)	1112815	FL	VR	FA1 +	FA2	FW			
	Pfaff (563, 953, 1050, 1180)	1112841	FL	VR	FA1	FA2	FW		ML	
	Dürkopp Adler (210, 270)	1112845	FL	VR	FA1 +	FA2	FW			
2	**Lockstitch: e. g.**	**Functions**	**FL**	**VR**		**FA**	**FSPL**	**FL1**	**ML**	**MST**
	Singer (212 UTT)	1112824	FL	VR		FA	FSPL	FL1		
3	**Lockstitch:** e. g. Dürkopp Adler (467)		FL	VR	FA	ML	FW	FSPL	MST/HP	FF2
4	**Chainstitch: e. g. Union Special**	**Functions**	**FL**	**FA-R**	**M1**	**FA-V**	**FW**	**STV**	**ML**	**MST/HP**
	(34000 and 36200 replacement for US80A)	1112865	FL	FA-R		FA-V	FW		ML	
	(CS100 and FS100)	1112905	FL	FA-R	M1	FA-V	FW		ML	
5	**Chainstitch: parallel sequence**	**Functions**	**FL**	**STV**	**M1**	**M2**	**M3**	**M4**	**ML**	**MST/HP**
	Bag sewing machine Union Special	**Functions**	**FL**		**IMP**	**BR**			**ML**	**MST**
	Yamato (VC/VG series)	1113345	FL	STV	FA		FW		ML	
	Kansai (RX 9803)	1113130	FL		FA		FW		ML	
	Pegasus (W500/UT, W600/UT/MS with or without stitch condensing)	1112821	FL	STV	FA	FA	FW			
	Union Special (34700)	1112844	FL	STV	FA	FA	FW		NK/ML	
	Global (CB2803-56)	1112866	FL				FA		ML	
	Rimoldi (F27)	1113096	FL		FW	FAO	FAU		ML	
6	**Chainstitch: tape cutter/fast scissors**		FL	STV	M1	M2	AH1	AH2	ML	MST/HP
7	**Overlock**		FL	KS	M1	M2	AH	FSPL	ML	MST/HP
8	**Backlatch**	**Functions**	**FL**		**PD£-1**	**PD³ 1**	**PD³ 1***		**ML**	**MST/HP**
	Pegasus	1113234			PD£-1	PD³ 1				
9	**Backlatch**	**Functions**	**FL**		**PD£-1**	**PD³ 1**	**PD³ 1***		**ML**	**MST/HP**
	Yamato (ABT3)	1112826			PD£-1	PD³ 1				
	Yamato (ABT13, ABT17)	1113205			PD£-1	PD³ 1				
10	**Lockstitch: e. g.**	**Functions**	**FL**	**FA-R**	**FSPL**	**FA-V**	**FW**	**VR**	**ML**	**MST/HP**
	Union Special (63900AMZ replacement for US80A) and on Refrey lockstitch machines	1112823	FL	FA-R		FA-V	FW		ML	
13	**Lockstitch:** Pfaff (1425, 1525)	1113324	FL	VR	FA	FSPL	FW	L-STL	ML	HP/FF
14	**Lockstitch: e. g.**	**Functions**	**FL**	**VR**	**FA1+2**	**FA2**	**FW**	**FA1**	**ML**	**MST**
	Juki (5550-6)	1112816	FL	VR	FA1+2		FW			
	Juki (5550-7, 8500-7, 8700-7)	1113132 +	FL	VR	FA1+2	FZ	FW			
	Adapter for position sensors incorporated in the handwheel	1113157								
15	**Backlatch** Pegasus (SSC100)		FL	KS/KB	KB	KS	FSPL	AH	ML	HP
16	**Overlock:** feed-off-the-arm machine e.g.Yamato (FD62)		FL	KS	RB	M2	AH	FSPL	ML	MST/HP
17	**Stitchlock:** Pegasus		FL	LFA	FA		STS		ML	MST/HP
20	**Lockstitch:** Juki (LU1510-7)	1113422	FL	VR	FA	FSPL				HP
	Lockstitch: Juki (DNU1541-7)	1113319	FL	VR	FA	FSPL				HP
	Adapter for position sensors incorporated in the handwheel	1113314								
21	**Chainstitch:** Yamato (stitch lock)	1113345	FL	STS	FA	STV	FW		ML	
22	**Lockstitch:** Brother (B-891)	1113290	FL	VR	FA	FSPL				MST
23	**Lockstitch:** Dürkopp Adler (271...275)		FL	VR	FA	ML	FW	FSPL	HP	MST
24	**Chainstitch:** Pegasus (MHG-100)	1113267	FL		FA	FA	FW			
25	**Lockstitch:** Juki (LU2210, LU2260)	1113350	FL	VR	FA	FSPL				HP
26	**Lockstitch:** e. g. Jentschmann		FL	VR	FA	ML	FW	FSPL	MST/HP	FF2
27	**Lockstitch:** ISM		FL	VR	FA1	FA2	FW	FA1+2	ML	MST/HP
28	**Backlatch**		FL	KS	KB1	KB2	KL	FSPL	ML	HP

The signals of outputs M7...M11 depend on the settings of certain parameters, in particular parameter 290!

*) The signal issued at this output is inverted!

30	**Lockstitch mode:** Juki LU1521N-7 with short FL trimmer 1113422 Adapter for position sensors incorporated in the handwheel 1113314	VR	FA	FSPL				HP	
31	**Lockstitch mode:** Brother 1113420	FL	VR	FA1	FA2	FW	FA1+2	ML	MST/HP
32	**Chainstitch mode:** Brother 1112822	FL	STV	FA	FA	FW			

The signals of outputs M7...M11 depend on the settings of certain parameters, in particular parameter 290!
*) The signal issued at this output is inverted!

Explanation of letter symbols of the above table and chapter "Timing Diagrams"

Outputs:

AH	Tape cutter	HP/FF1	High lift for walking foot / flip-flop 1
AH1/AH2	Fast scissors	IMP	Impulse
BR	Hot thread chain cutting	KB (1/2)	Chain blowing
DR-UK	Reversal of motor direction	KL	Thread clamp
FA	Thread trimmer	KS	Chain suction
FA1	Thread trimmer pos. 1...1A	KS+KB	Chain suction + blowing
FA1+2	Thread trimmer pos. 1...2	LFA	Top cover thread cutter
FA2	Thread trimmer pos. 1A...2	L-STL	Indicator lamp for stitch length
FA-K	Short trimmer	ML/NK	Machine running / Needle cooling
FAO	Needle thread trimmer	MST	Machine at standstill
FA-R	Thread trimmer backward	PD³ 1	Pedal steps 1...12
FAU	Bobbin thread trimmer	PD£-1	Pedal steps –1 / -2
FA-V	Thread trimmer forward	PD=0	Pedal step 0
FF2	Flip-flop 2	PD-2	Pedal step -2
FL	Sewing foot lifting	RB	Chain blowing in opposite direction
FL1	Sewing foot lifting without pulsing	STB	Blow fabric onto stack
FSPL	Thread tension release	STS	Stitch lock
FW	Thread wiper	STV	Stitch condensing
FZ	Thread puller	VR	Backtacking

3 Putting into Service

Before putting the control into service, the following must be ensured, checked and/or adjusted:

▪ **The correct installation of the drive, position transmitter and accompanying devices, if necessary**

▪ **The correct selection of the trimming operation by means of parameter 290**

▪ **If necessary, the correct adjustment of the direction of motor rotation by means of parameter 161**

▪ **The correct selection of the functions of keys (inputs) by means of parameters 240...249**

▪ **The setting of the transmission ratio between motor shaft and machine shaft by means of parameter 272**

▪ **The setting of the type of position sensor by means of parameter 270**

▪ **If necessary, the setting of the number of angular degrees after the sensor position by means of parameter 271**

▪ **If necessary, the setting of the positions by means of parameter 171
(possible with all settings of parameter 270)**

▪ **The correct positioning speed by means of parameter 110**

▪ **The correct maximum speed compatible with the sewing machine by means of parameter 111**

▪ **The setting of the remaining relevant parameters**

▪ **Start sewing in order to save the set values**

See instruction manual for details!

4   Setting and Putting into Service with the Aid of the Fast Installation Routine (SIR)

The Fast Installation Routine (SIR) passes through all parameters necessary for programming the functional sequence and the positions.

	Code 3112
	E
	F-200
Input parameter 500	F-500
	E
	≫
Parameter for functional sequence "thread trimming operations"	F-290
	E
Parameter for direction of motor rotation	F-161
	E
Parameter for transmission ratio **Important!** The transmission ratio should be determined and indicated as precisely as possible.	F-272
	E
Parameter for type of position sensor	F-270
	E
Parameter for position 1	F-451
	E
Parameter for position 2	F-453
	E — Yes
	No
	P
	End SIR KL2438a
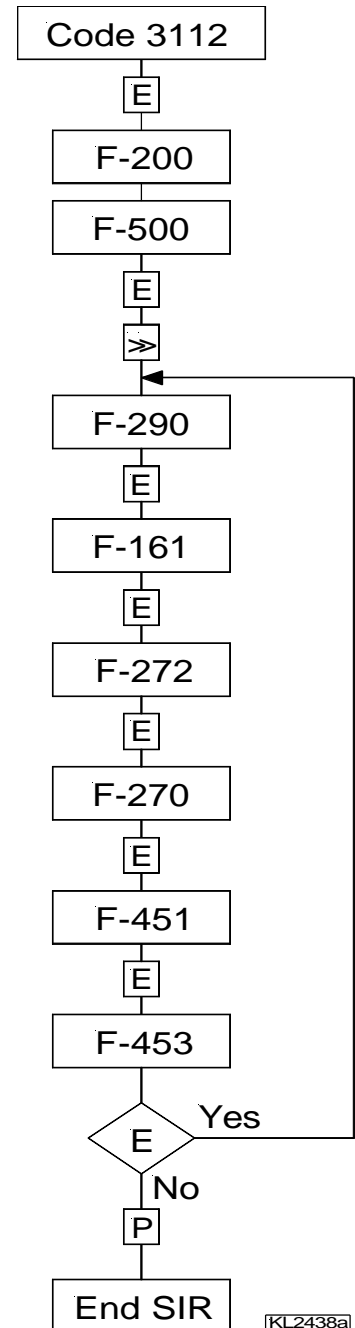
The values can be varied by pressing the +/- keys. When the parameter is displayed on the V810 control panel, press key E once more for the value to be displayed.

Exit the routine any time by pressing key **P** once, and select a new parameter. Exit programming by pressing key **P** twice, and the drive is ready for a new sewing operation.

See instruction manual for details!
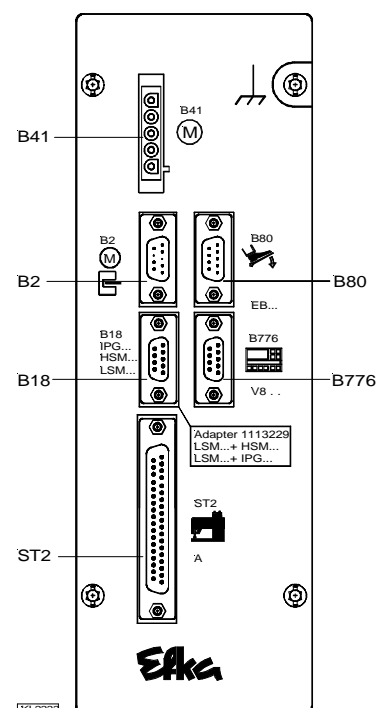
5 Operating Elements and Socket Connectors

5.1 Position of Operating Elements and Displays

S1	**Key P**	
	▪ Call or exit programming mode	
S2	**Key E**	
	▪ Start backtack single / double / off	
	▪ Enter key for modifications in the programming mode	
S3	**Key +**	
	▪ End backtack single / double / off	
	▪ Increase of the value indicated in the programming mode	
S4	**Key –**	
	▪ Automatic sewing foot lifting at stop in the seam On/Off	
	▪ Automatic sewing foot lifting after thread trimming On/Off	
	▪ Decrease of the value indicated in the programming mode	
S5	**Key >>**	
	▪ Basic position 1 or 2	
	▪ Shift key in the programming mode	

LED1 Indicator for single start backtack
LED2 Indicator for double start backtack
LED3 Indicator for single end backtack
LED4 Indicator for double end backtack
LED5 Indicator for automatic sewing foot lift at stop in the seam
LED6 Indicator for automatic sewing foot lift after the thread trimming operation
LED7 Indicator for basic position "needle position 1"
LED8 Indicator for basic position "needle position 2"
Display 3 digits
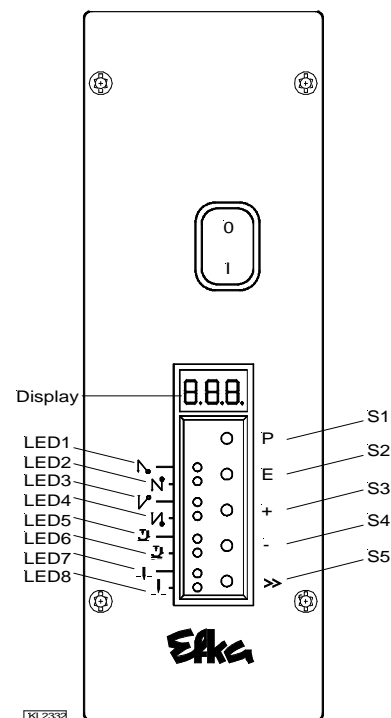
5.2 Position of the Socket Connectors

B2 Socket for commutation transmitter

B18 Socket for   - Light barrier module LSM002
                        - Hall sensor module HSM001
                        - Pulse encoder IPG001
                        - EFKANET
(Adapter cord 1113229 in case of multiple assignment)

B41 Socket for motor power supply

B80 Socket for actuator

B776 Socket for V810/V820 control panel

ST2 Socket for solenoid inputs and outputs / solenoid valves / displays / keys and switches

5.3 Connection Diagram

Inputs switched to 0V
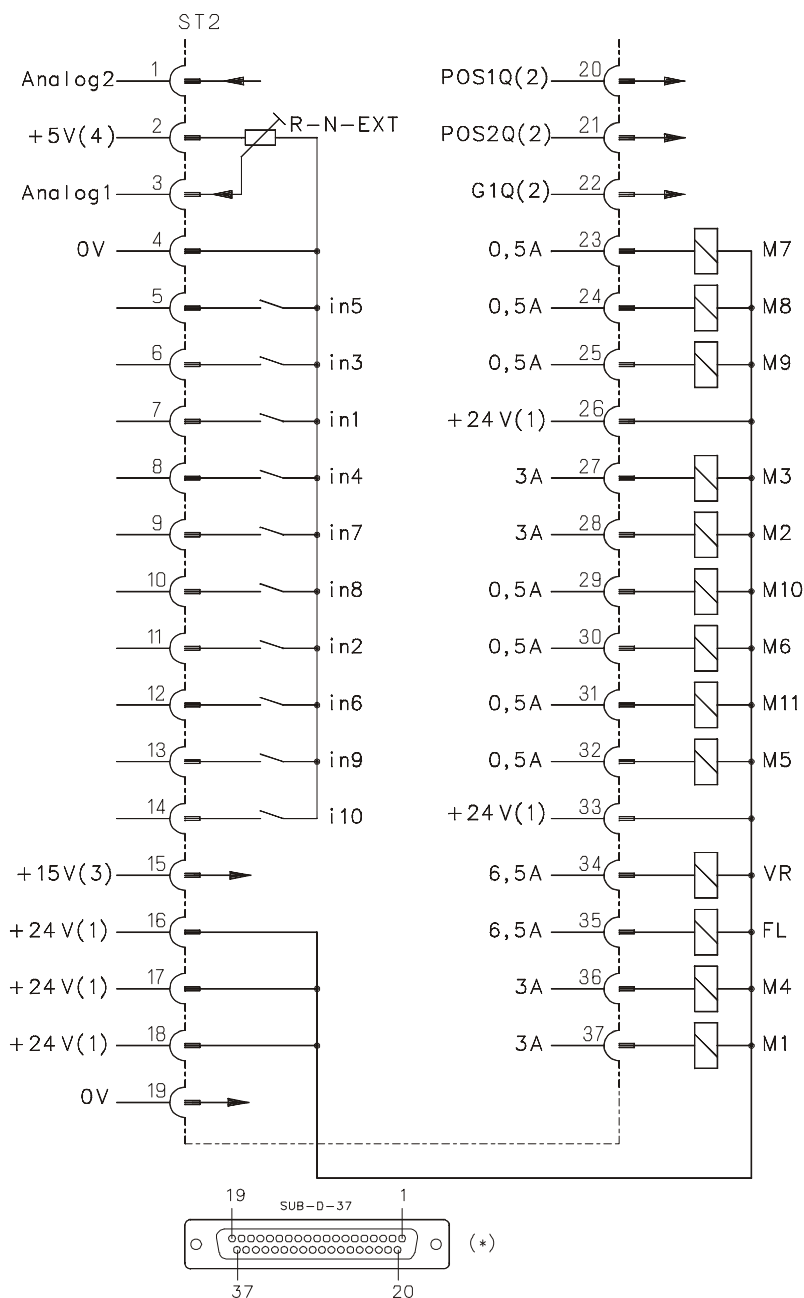
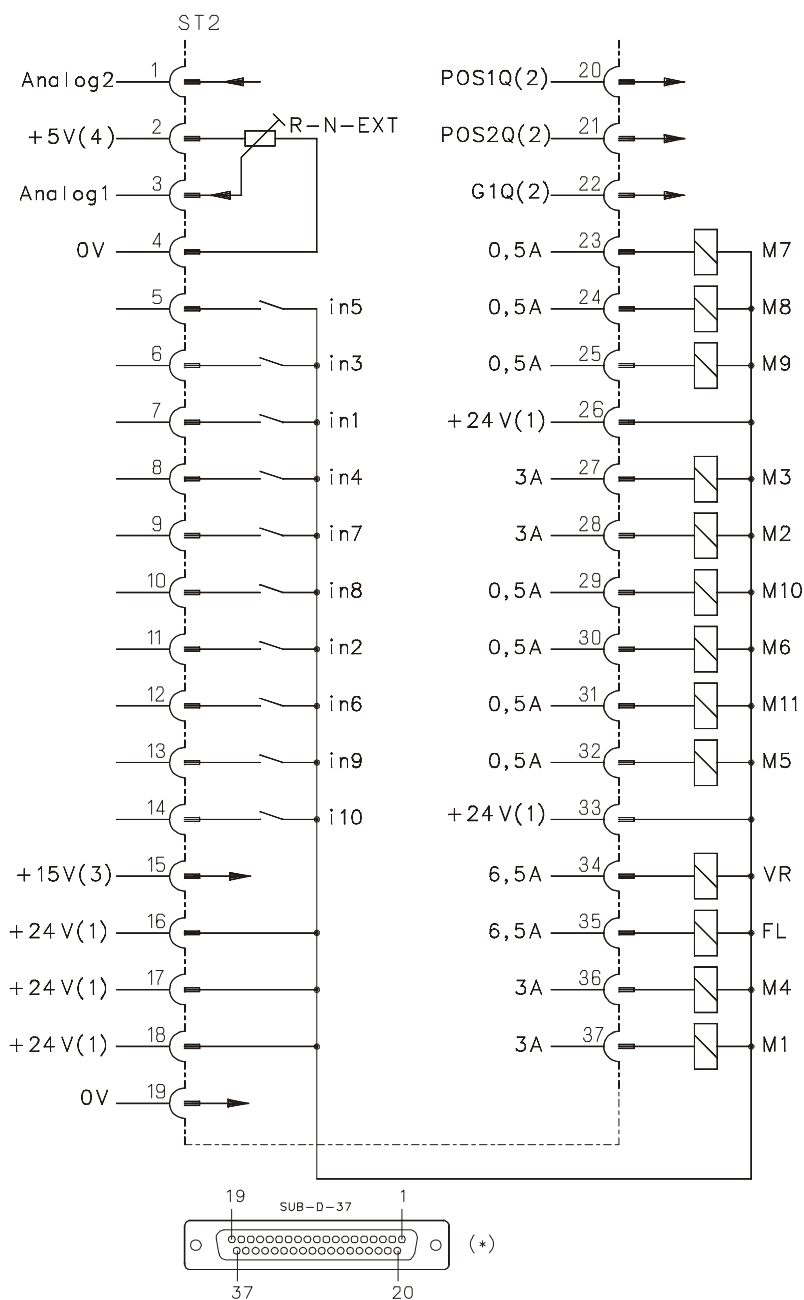|	ST2			
Analog2	1		POS1Q(2)	20
+5V(4)	2	R-N-EXT	POS2Q(2)	21
Analog1	3		G1Q(2)	22
0V	4		0,5A	23 M7
	5	in5	0,5A	24 M8
	6	in3	0,5A	25 M9
	7	in1	+24V(1)	26
	8	in4	3A	27 M3
	9	in7	3A	28 M2
	10	in8	0,5A	29 M10
	11	in2	0,5A	30 M6
	12	in6	0,5A	31 M11
	13	in9	0,5A	32 M5
	14	i10	+24V(1)	33
+15V(3)	15		6,5A	34 VR
+24V(1)	16		6,5A	35 FL
+24V(1)	17		3A	36 M4
+24V(1)	18		3A	37 M1
0V	19			

SUB-D-37 (*)

BI1153d

⚠️ **ATTENTION!**
When connecting the outputs, ensure that a total power of 96VA constant load will not be exceeded!

in1	- Input 1	i10	- Input 10	M9	- Output 9
in2	- Input 2	M1	- Output 1	M10	- Output 10
in3	- Input 3	M2	- Output 2	M11	- Output 11
in4	- Input 4	M3	- Output 3	FL	- Sewing foot lifting
in5	- Input 5	M4	- Output 4	VR	- Backtacking
in6	- Input 6	M5	- Output 5	POS1	- Position 1
in7	- Input 7	M6	- Output 6	POS2	- Position 2
in8	- Input 8	M7	- Output 7	GEN	- 512 generator impulses
in9	- Input 9	M8	- Output 8	R-N-EXT	- External potentiometer for speed limitation (50kW)

Inputs switched to +24V

ST2

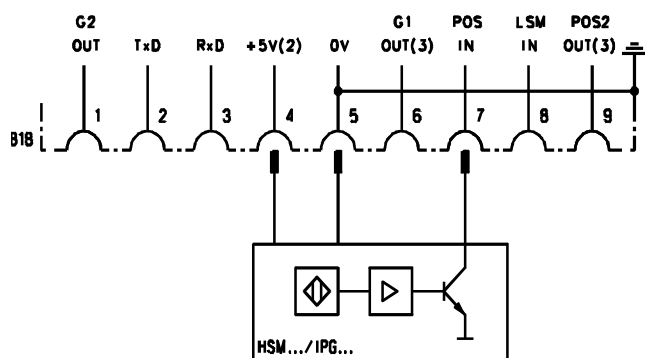| Pin			Pin		
Analog2	1		POS1Q(2)	20	
+5V(4)	2	R-N-EXT	POS2Q(2)	21	
Analog1	3		G1Q(2)	22	
0V	4		0,5A	23	M7
	5	in5	0,5A	24	M8
	6	in3	0,5A	25	M9
	7	in1	+24V(1)	26	
	8	in4	3A	27	M3
	9	in7	3A	28	M2
	10	in8	0,5A	29	M10
	11	in2	0,5A	30	M6
	12	in6	0,5A	31	M11
	13	in9	0,5A	32	M5
	14	i10	+24V(1)	33	
+15V(3)	15		6,5A	34	VR
+24V(1)	16		6,5A	35	FL
+24V(1)	17		3A	36	M4
+24V(1)	18		3A	37	M1
0V	19				

SUB-D-37

(*)

BI1164a

⚠ **ATTENTION!**
When connecting the outputs, ensure that a total power of 96VA constant load will not be exceeded!

1)   Nominal voltage 24V, no-load voltage max. 30V momentarily after power on
2)   Transistor output with open collector max. 40V, 10mA
3)   Nominal voltage 15V, $I_{max} = 30mA$
4)   Nominal voltage 5V, $I_{max} = 20mA$
*)   Front view of the socket (component side) and/or rear view of the plug (soldering side)

Connection of a HSM001 Hall sensor module or an IPG001 pulse encoder   **Connection of a LSM002 light barrier module**
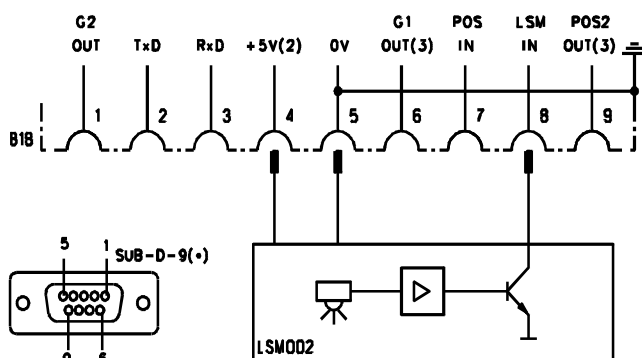

Adapter cord 1113229 in case of multiple assignment of socket B18!

POS2 OUT	- Output for position 2
POS IN	- Input for positions
G1/G2 OUT	- Output of generator impulses
TXD/RXD	- Serial transmission lines
LSM IN	- Possibility of connecting a light barrier module to socket B18/8 (If parameter 239 = 0, the light barrier function is selected. Identification of the signal when switched to 0V.)
LSM002	- Reflection light barrier module
HSM...	- Hall sensor module
IPG...	- Pulse encoder

If parameter 239 is set to >0, it is possible to operate a key at the input of the B18/8 connector.
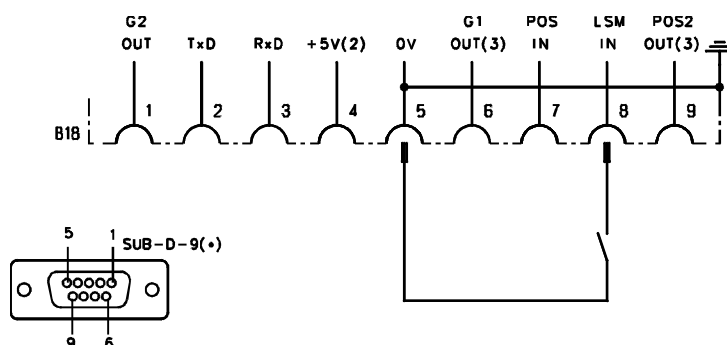
There is a supply voltage of +5V for external devices on the B18/4 socket. After opening the cover, this voltage can be changed to +15V by replugging a multipole connector J1 on the printed circuit board.

+5V = Connect lefthand pins 1 and 2 with jumper
(factory setting)
+15V = Connect righthand pins 3 and 4 with jumper
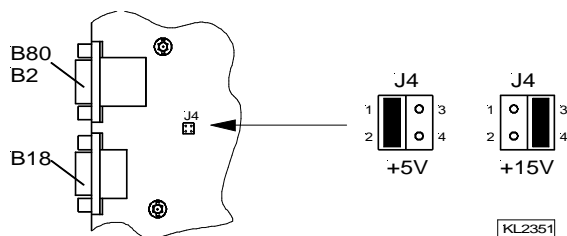
⚠ ATTENTION!
Before opening the cover, turn power off!

1) Nominal voltage +15V, 100mA (repluggable to +5V, 100mA)
2) Transistor output with open collector max. 40V, 10mA
*) Front view of the socket (component side) and/or rear view of the plug (soldering side)

0V N.C. N.C. C +5V(2) B D A N.C.

B80

SUB-D-9(*)

EB...

BI1160

EB..   Actuator

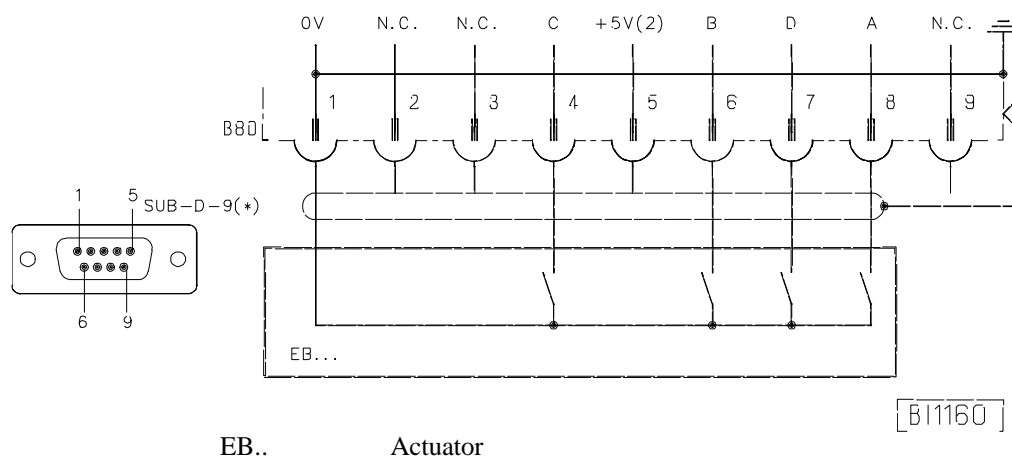| Pedal step →	-2	-1	0	½	1	2	3	4	5	6	7	8	9	10	11	12
Input A	L	L	H	H	H	L	L	H	H	L	L	H	H	L	L	H
Input B	L	H	H	L	L	L	H	H	H	H	L	L	L	L	H	H
Input C	H	H	H	H	L	L	L	L	L	L	L	L	H	H	H	H
Input D	H	H	H	H	H	H	H	H	L	L	L	L	L	L	L	L

5.4   Connection of a Sewing Light with Transformer

ATTENTION!

Before opening the cover, turn power off!

- **Switch off the control and remove mains plug from outlet**
- Unscrew the control unit from the machine table
- Loosen 2 screws (**A**) each at the front and at the rear
- Open the left part of the housing
- Pull the sewing light cable through the provided cable bushing
- Area (**B**): Connect strands with clamp on the printed circuit board
- Insert earth lead into plug-in device on the housing part
- Close and screw-connect the housing
- Mount the control unit on the machine table

KL2399a
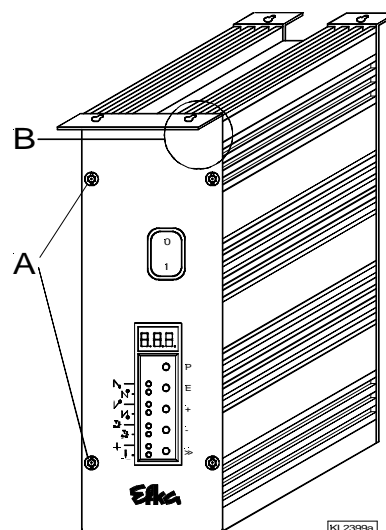
CAUTION!
When the sewing light is connected, it is always current-carrying (230V), even if the control unit is switched off! Only one sewing light with transformer can be connected to the control unit!

6   Connection Scheme of SM210A Stepping Motor Control

mot   V810/V820   DC1500/1550

Nr.1113172

SM210....

AB220A..../FP220A....
AB320A..../FP320A....

KL2511
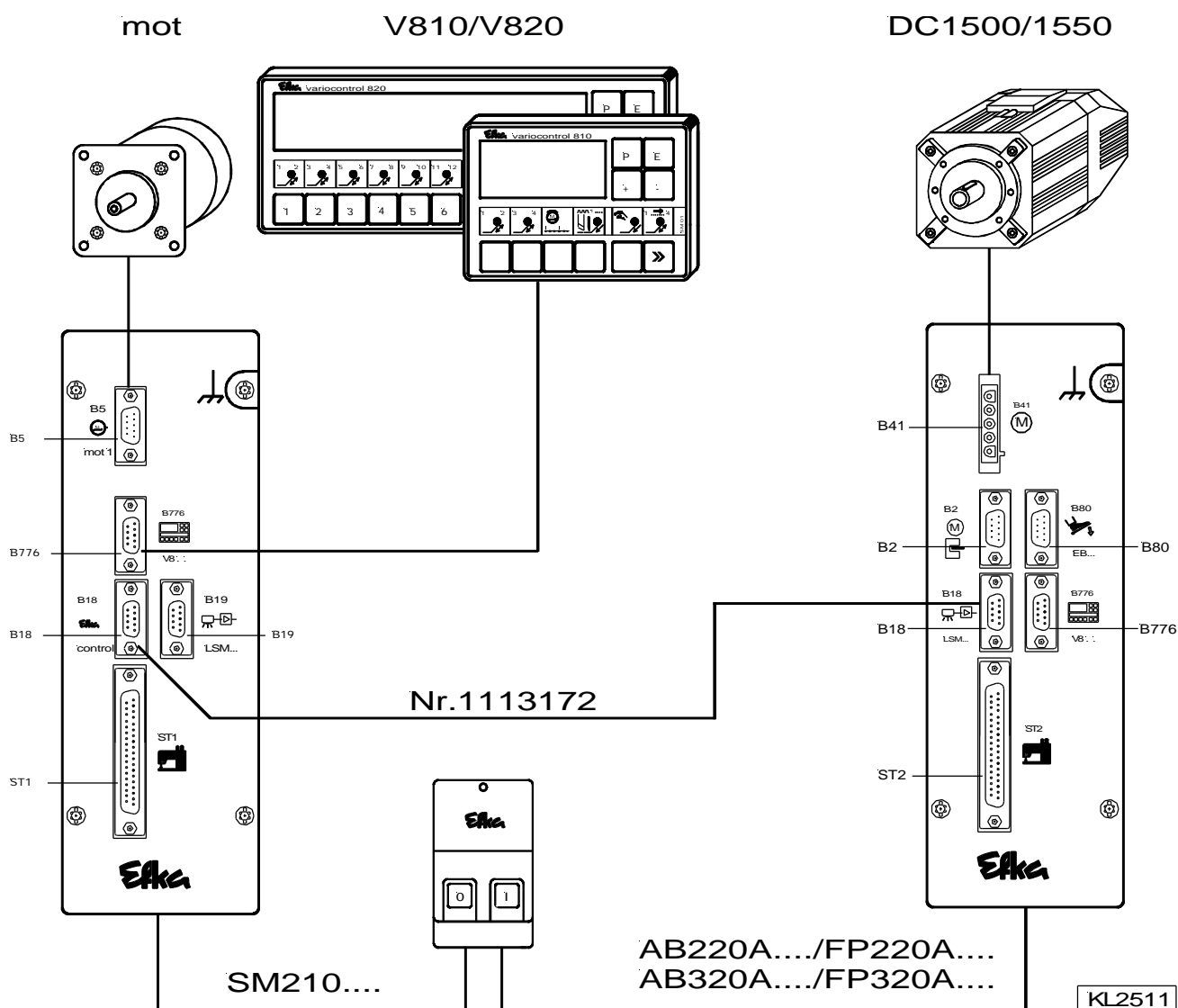
The control (B18) and the SM210A....stepping motor control (B18) are connected by means of adapter cord no. 1113172.

If a light barrier is required for the sewing process, it must be connected to socket B9 on the stepping motor control. The light barrier signal is transmitted via the connecting cable from the SM210A to the sewing drive. Should an IPG001 pulse encoder or a HSM001 Hall sensor module be necessary besides the light barrier module, use adapter cord no. 1113229, which is to be connected to socket B19 of the SM210A.... stepping motor control.
Unless a stepping motor control is provided, adapter cord no. 1113229 for light barrier module and pulse encoder or Hall sensor module is connected to socket B18 of the sewing drive.

7 Adapter Cords

Adapter cord for AISIN models AD3XX, AD158, 3310 and EK1

Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	=	0
Setting the functions of the keys	Input in1	➜	Set parameter 240	=	16
	Input in3	➜	Set parameter 242	=	1
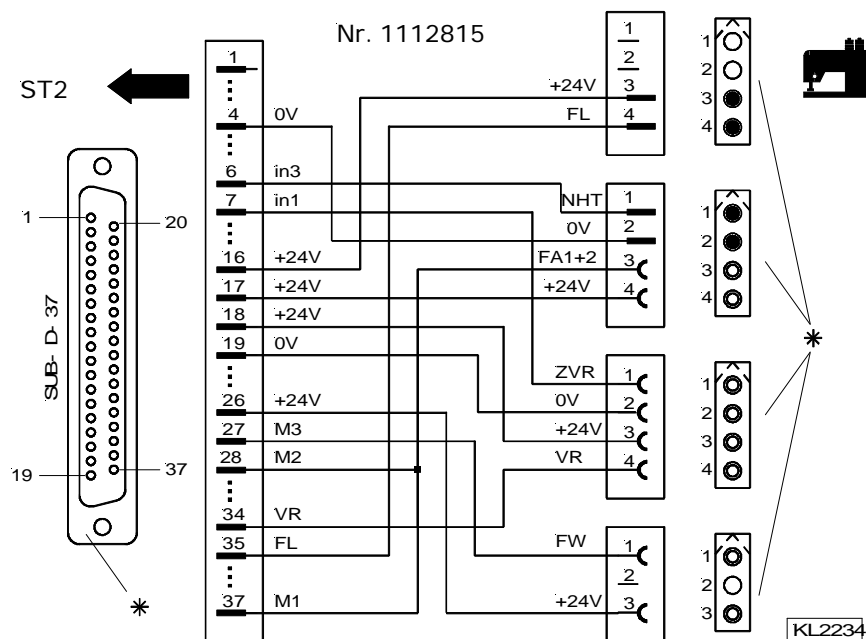
Adapter cord for BROTHER models 737-113 and 737-913

Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	=	0
Setting the functions of the keys	Input in1	➜	Set parameter 240	=	16
	Input in3	➜	Set parameter 242	=	1
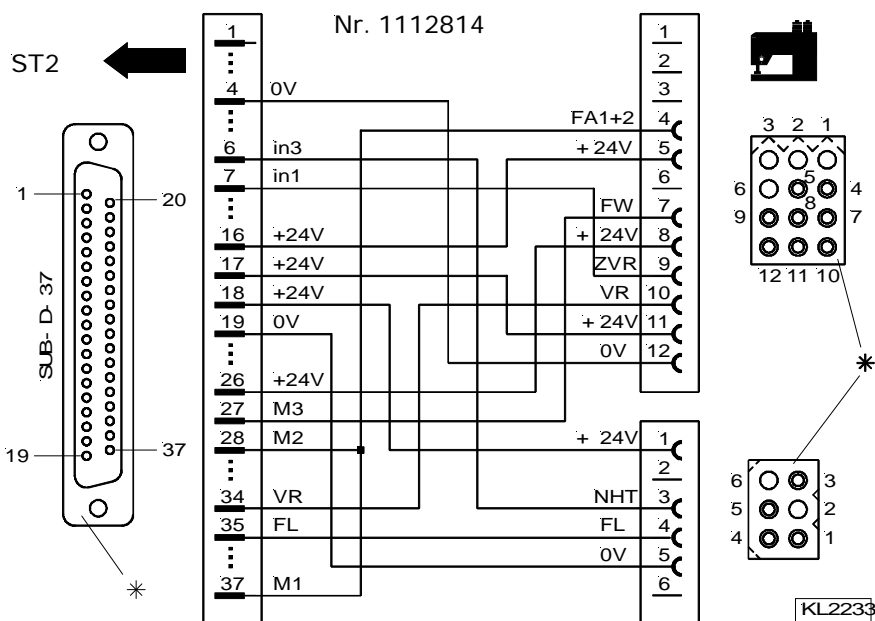
Connection of a position sensor incorporated in the machine by means of adapter cord no. 1113433.

*)   Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for BROTHER model FD3 B257

Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	= 5
Setting the functions of the keys	Input in1	➜	Set parameter 240	= 7
	Input in3	➜	Set parameter 242	= 18
	Input in4	➜	Set parameter 243	= 16
	Input in5	➜	Set parameter 244	= 17
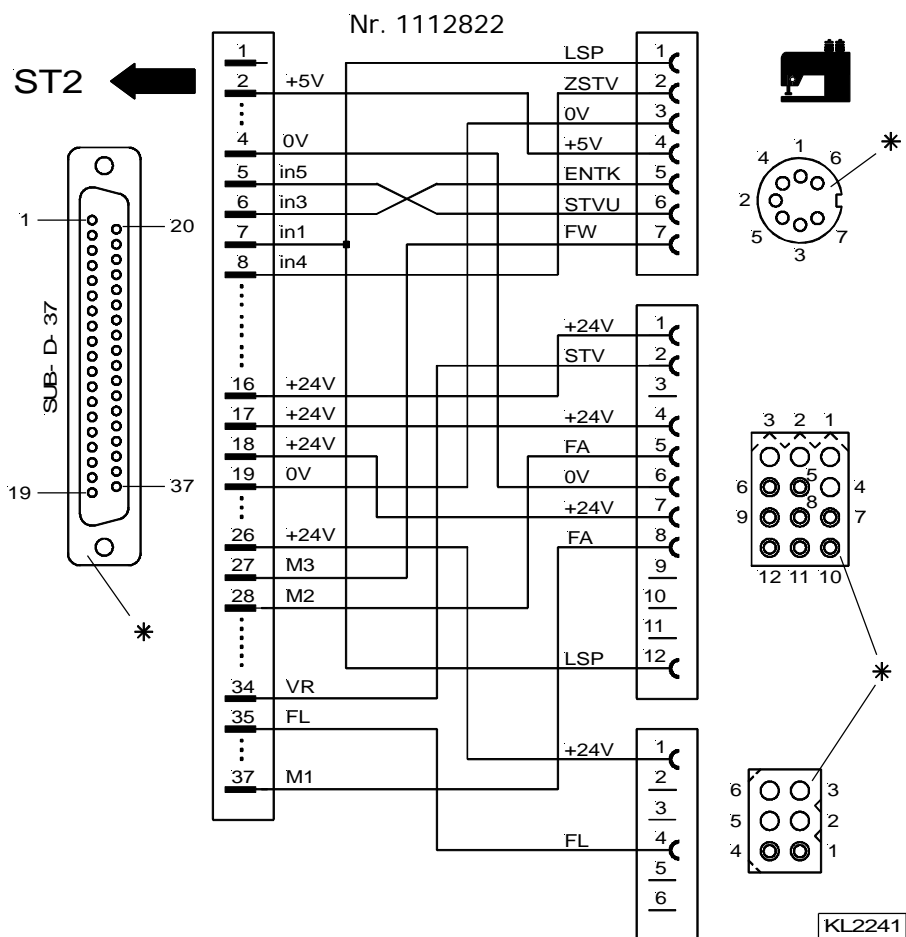
Connection of a position sensor incorporated in the machine by means of adapter cord no. 1113433.

*)   Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for BROTHER model B-891

Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	= 22
Setting the functions of the keys	Input in1	➜	Set parameter 240	= 12
(Automatic setting)	Input in2	➜	Set parameter 241	= 22
	Input in3	➜	Set parameter 242	= 2
	Input in4	➜	Set parameter 243	= 14
	Input in5	➜	Set parameter 244	= 17
	Input in6	➜	Set parameter 245	= 16
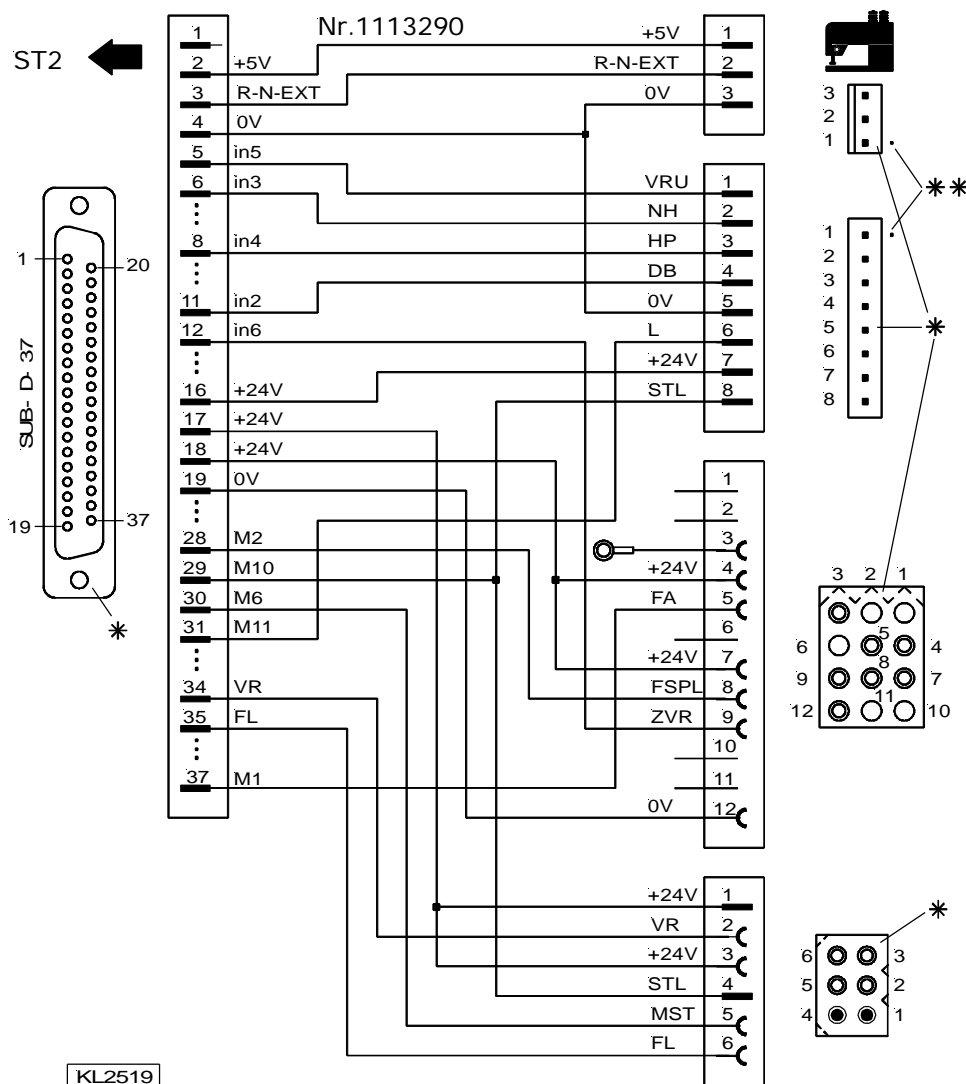
Connection of a position sensor incorporated in the machine by means of adapter cord no. 1113433.

in2 = Input **speed limitation n11** (flip-flop 2) output ST2/29 is active according to setting of parameter 186 (DB)
in3 = Input **needle up** (NH)
in4 = Input **high lift for walking foot with speed limitation n10** (flip-flop 1) (HP)
in5= Input **stitch regulator suppression / stitch regulator recall** (VRU)
in6 = Input **intermediate backtack / intermediate stitch condensing** (ZVR)

*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

) **Attention: Note the mark on pin 1 of the connector strips!

Adapter cord for DÜRKOPP ADLER models 210, 270

Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	=	0
Setting the functions of the keys	Input in1	➜	Set parameter 240	=	16
	Input in3	➜	Set parameter 242	=	1
	Input in4	➜	Set parameter 243	=	3
	Input in5	➜	Set parameter 244	=	17

Nr. 1112845

KL2259a
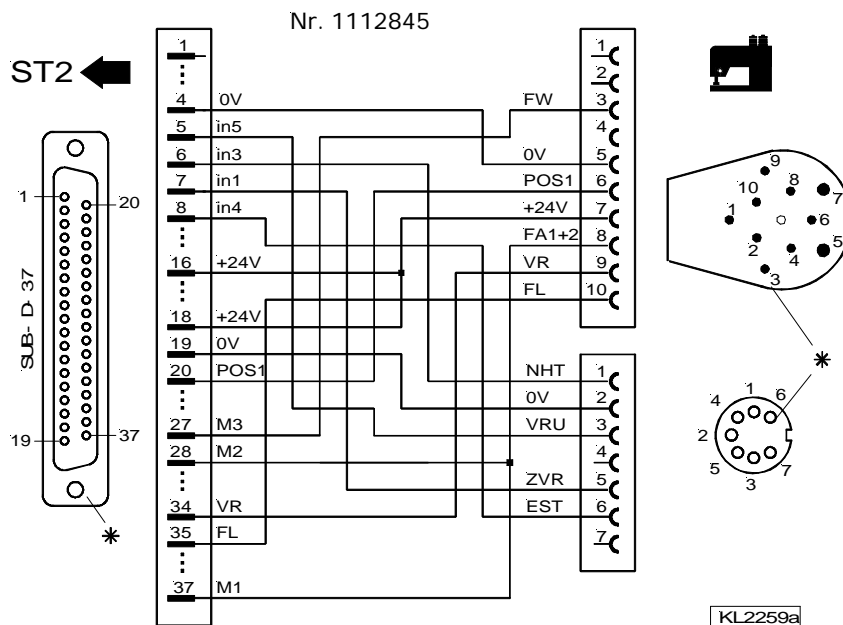
Adapter cord for GLOBAL model CB2803-56

| Setting the functional sequence | Thread trimming mode | ➜ | Set parameter 290 | = | 5 |
| Setting the functions of the keys | Input in1 | ➜ | Set parameter 240 | = | 6 |

Nr. 1112866

KL2301

*)   Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for JUKI model 5550-6

Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	= 14
Setting the functions of the keys	Input in2	➜	Set parameter 241	= 16

Nr. 1112816

Connection of a position sensor incorporated in the machine by means of adapter cord no. 1113157.

Adapter cord for JUKI model 5550-7, 8500-7, 8700-7

| Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	= 14
Setting the functions of the keys	Input in2	➜	Set parameter 241	= 16

Nr. 1113132

Connection of a position sensor incorporated in the machine by means of adapter cord no. 1113157.

*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.
**) Front view (component side) of the Molex Minifit plugs.

Adapter cord for JUKI models LU1510-7 and LU1521N-7 (with short trimmer)

				(LU1510-7)	(LU1521N-7)
Setting the functional sequence	Thread trimming mode ➔	Set parameter 290	= 20	30
Setting the functions of the keys	Input in1 ➔	Set parameter 240	= 14	0
(Automatic setting)	Input in3 ➔	Set parameter 242	= 31	0
	Input in4 ➔	Set parameter 243	= 32	14
	Input in6 ➔	Set parameter 245	= 16	31
	Input in7 ➔	Set parameter 246	= 13	32

Nr. 1113422

Connection of a position sensor incorporated in the machine by means of adapter cord no. 1113314.

in1 = Input **high lift for walking foot with speed limitation n10** (operational mode not stored) for knee switch
in3 = Input **speed limitation bit 0** (S1)
in4 = Input **speed limitation bit 1** (S2)
in6 = Input **intermediate backtack**
in7 = Input **high lift for walking foot with speed limitation n10** (operational mode not stored) for additional pushbutton on the machine head

*)   Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.
**)   Front view (component side) of the Molex Minifit plugs.

Adapter cord for JUKI model DNU1541-7

Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	= 20
Setting the functions of the keys	Input in1	➜	Set parameter 240	= 13
(Automatic setting)	Input in2	➜	Set parameter 241	= 1
	Input in3	➜	Set parameter 242	= 31
	Input in4	➜	Set parameter 243	= 32
	Input in5	➜	Set parameter 244	= 17
	Input in6	➜	Set parameter 245	= 16
	Input in7	➜	Set parameter 246	= 13
	Input in8	➜	Set parameter 247	= 22

Connection of a position sensor incorporated in the machine by means of adapter cord no. 1113157.

in1 = Input **high lift for walking foot with speed limitation n10** (operational mode not stored) for knee switch
in2 = Input **needle up/down**
in3 = Input **speed limitation bit 0** (S1)
in4 = Input **speed limitation bit 1** (S2)
in5= Input **stitch regulator suppression / stitch regulator recall**
in6 = Input **intermediate backtack**
in7 = Input **high lift for walking foot with speed limitation n10** (operational mode not stored) for additional
        pushbutton on the machine head
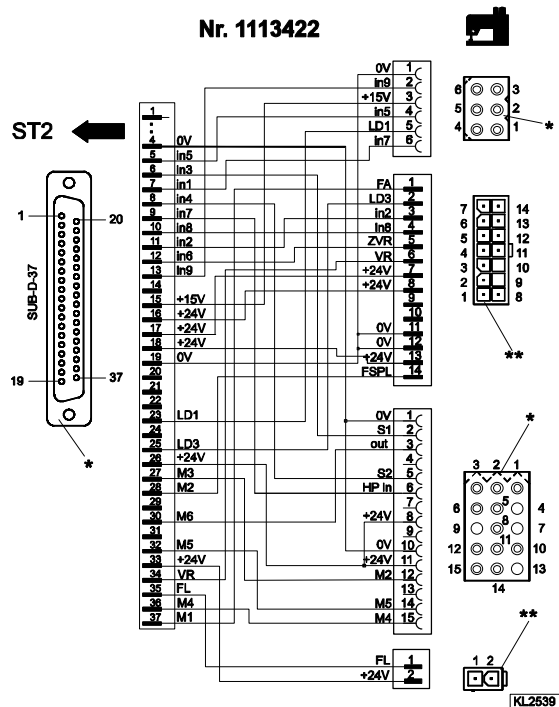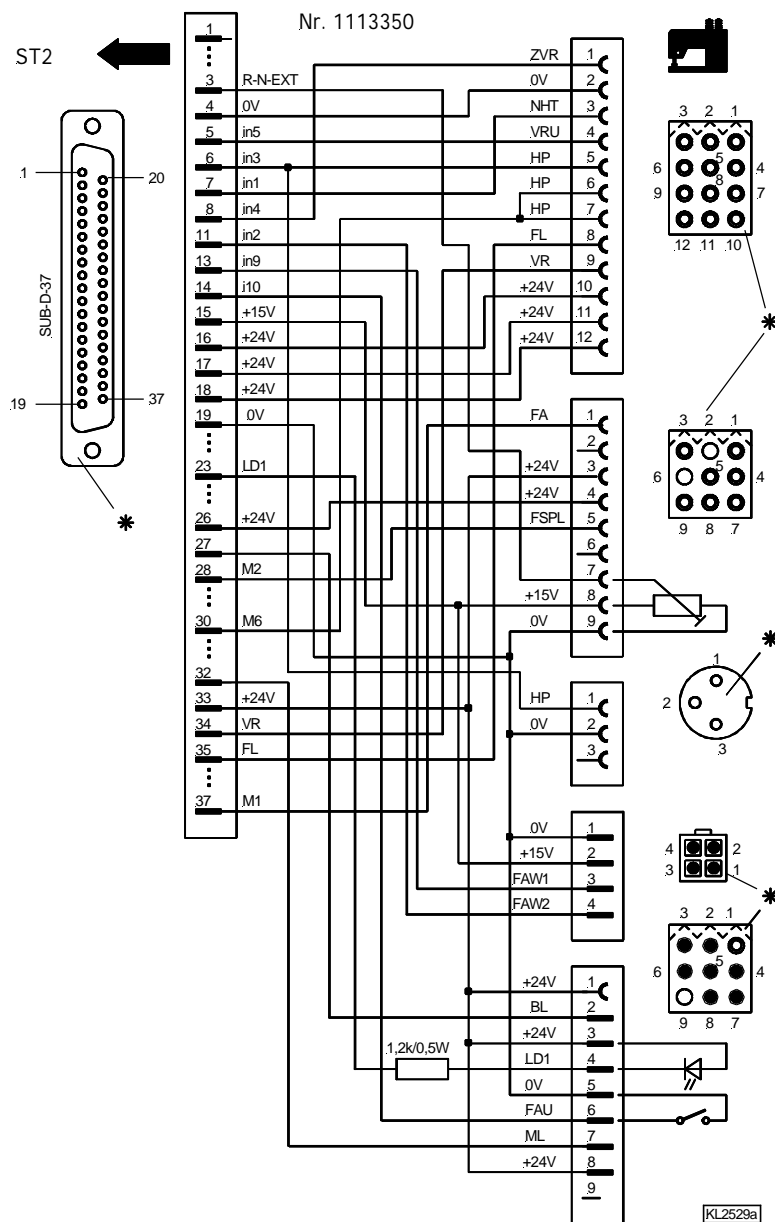in8 = Input **speed limitation n11** (operational mode stored)

*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for JUKI model LU2210, LU2260

Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 25
Setting the functions of the keys	Input in1	→	Set parameter 240	= 1
(Automatic setting)	Input in2	→	Set parameter 241	= 57
	Input in3	→	Set parameter 242	= 14
	Input in4	→	Set parameter 243	= 16
	Input in5	→	Set parameter 244	= 17
	Input in9	→	Set parameter 248	= 57
	Input i10	→	Set parameter 249	= 19

Connection of a position sensor incorporated in the machine by means of adapter cord no. 1113157.

in1 = Input **needle up/down (NHT)**

in2 = Input **Juki bobbin thread monitor 2 (FAW2)**

in3 = Input **high lift for walking foot with speed limitation n10 (HP)** (flip-flop 1)

in4 = Input **intermediate backtack / intermediate stitch condensing (ZVR)**

in5= Input **stitch regulator suppression / stitch regulator recall (VRU)**

in9 = Input **Juki bobbin thread monitor 1 (FAW1)**

i10 = Input **reset bobbin thread monitor (FAU)**

*)   Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for KANSAI model RX9803

Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	=	5
Setting the functions of the keys	Input in1	➜	Set parameter 240	=	7

*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for PFAFF models 563, 953, 1050, 1180 without thread monitor

Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	=	0
Setting the functions of the keys	Input in4	➜	Set parameter 243	=	12
	Input in5	➜	Set parameter 244	=	16

*) Rear view (soldering side) of 37-pin plug (ST2) and of the remaining sockets.

Adapter cord for PFAFF model 1425, 1525

Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 13
Setting the functions of the keys	Input in1	→	Set parameter 240	= 2
(Automatic setting)	Input in2	→	Set parameter 241	= 16
	Input in3	→	Set parameter 242	= 24
	Input in4	→	Set parameter 243	= 11
	Input in5	→	Set parameter 244	= 22
	Input in7	→	Set parameter 246	= 33
	Input in8	→	Set parameter 247	= 14
	Input in9	→	Set parameter 248	= 17
	Input i10	→	Set parameter 249	= 25

in1 = Input **needle up**
in2 = Input **intermediate backtack**
in3 = Input **needle moves from position 1 to position 2**
in4 = Input **speed limitation n12 with pedal (DB1 = speed limitation 1)**
in5 = Input **flip-flop for speed limitation n11**
in7 = Input **speed limitation n9 (DB2 = speed limitation 2)**
in8 = Input **high lift for walking foot with speed limitation n10 (operational mode stored)**
in9= Input **stitch regulator suppression / stitch regulator recall**
i10 = Input **speed limitation with external potentiometer**

*)   Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

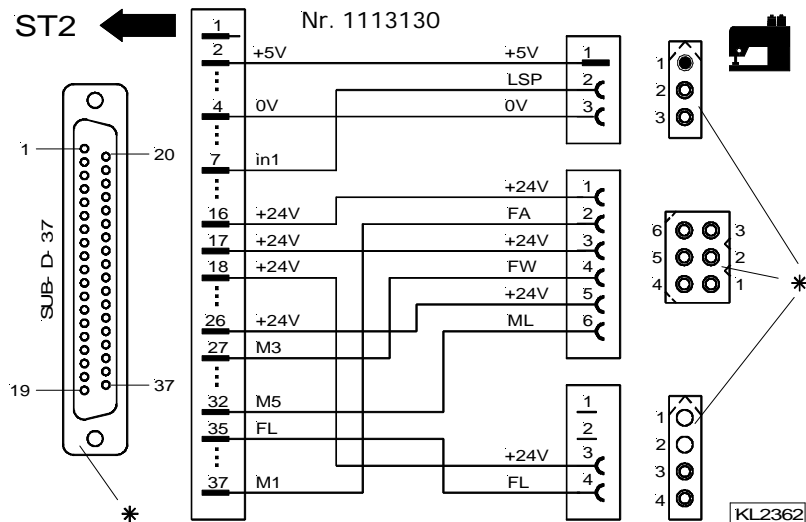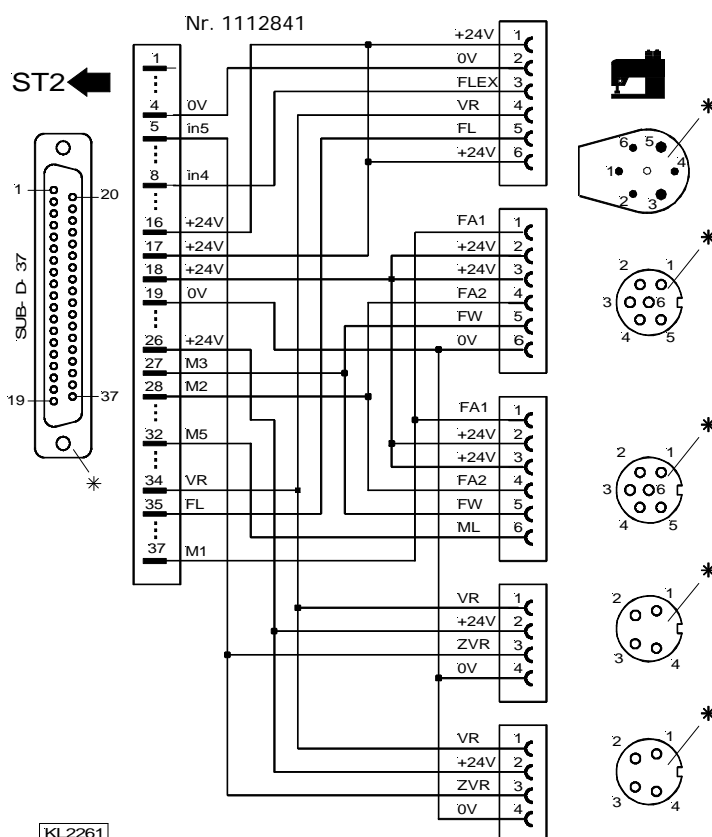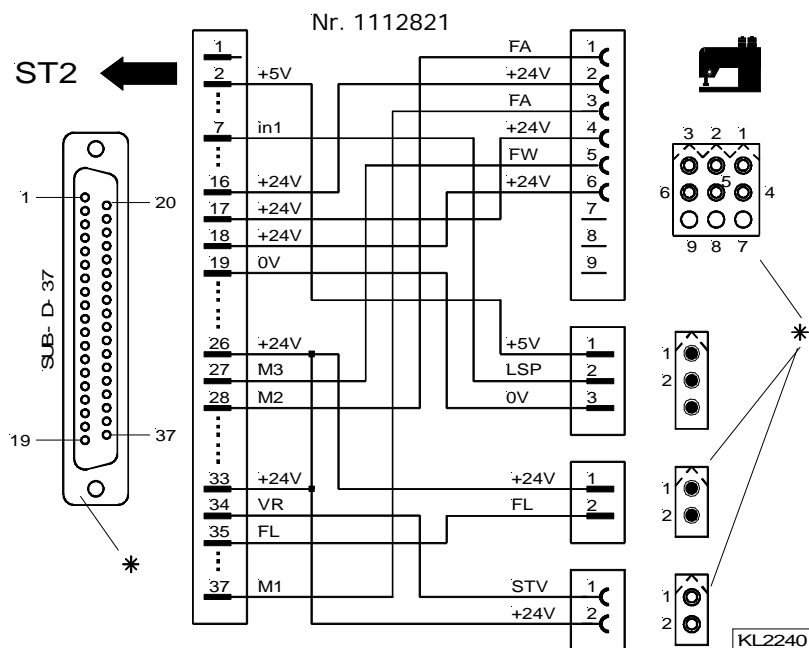**Adapter cord for PEGASUS models W500/UT, W600/UT/MS with or without stitch condensing**

Setting the functional sequence	Thread trimming mode	➔	Set parameter 290	=	5
Setting the functions of the keys	Input in1	➔	Set parameter 240	=	7

Nr. 1112821

ST2

Attention! **When using this adapter cord on a Pegasus machine, the 9-core cable no. 742373-91 must be removed from the machine!**
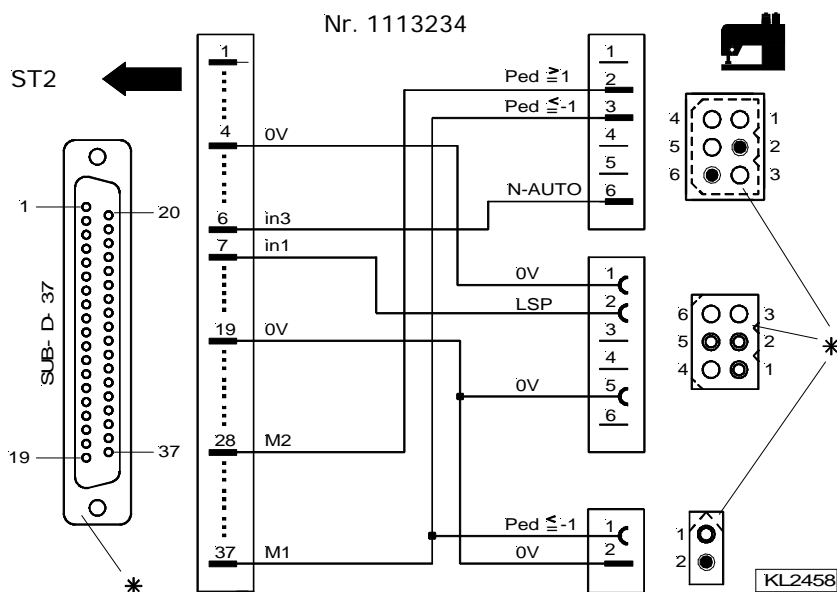
Adapter cord for PEGASUS backlatch machines

Setting the functional sequence	Thread trimming mode	➔	Set parameter 290	=	8
Setting the functions of the keys	Input in1	➔	Set parameter 240	=	6
(Automatic setting)	Input in3	➔	Set parameter 242	=	10

Nr. 1113234

ST2

*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for PEGASUS model MHG

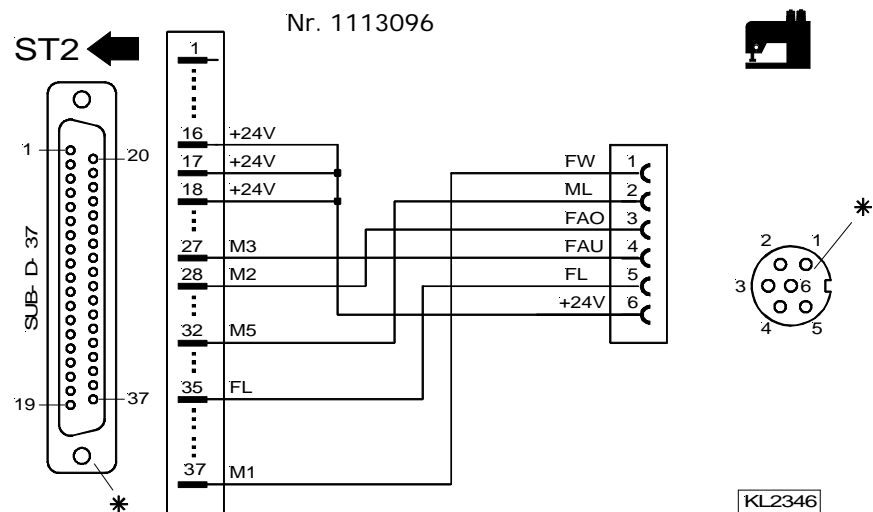| Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	=	24
Setting the functions of the keys	Input in1	➜	Set parameter 240	=	6
	Input in2	➜	Set parameter 241	=	13
	Input in3	➜	Set parameter 242	=	28
	Input in4	➜	Set parameter 243	=	22

Nr.1113267

KL2482

*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for RIMOLDI model F27

Setting the functional sequence	Thread trimming mode	➔	Set parameter 290	=	5

Nr. 1113096

KL2346

Adapter cord for SINGER models 211, 212 and 591

Setting the functional sequence (Singer model 212UTT)	Thread trimming mode	➔	Set parameter 290	=	2
Setting the functions of the keys	Input in1	➔	Set parameter 240	=	1
	Input in3	➔	Set parameter 242	=	16

Nr. 1112824

KL2243

*)   Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.
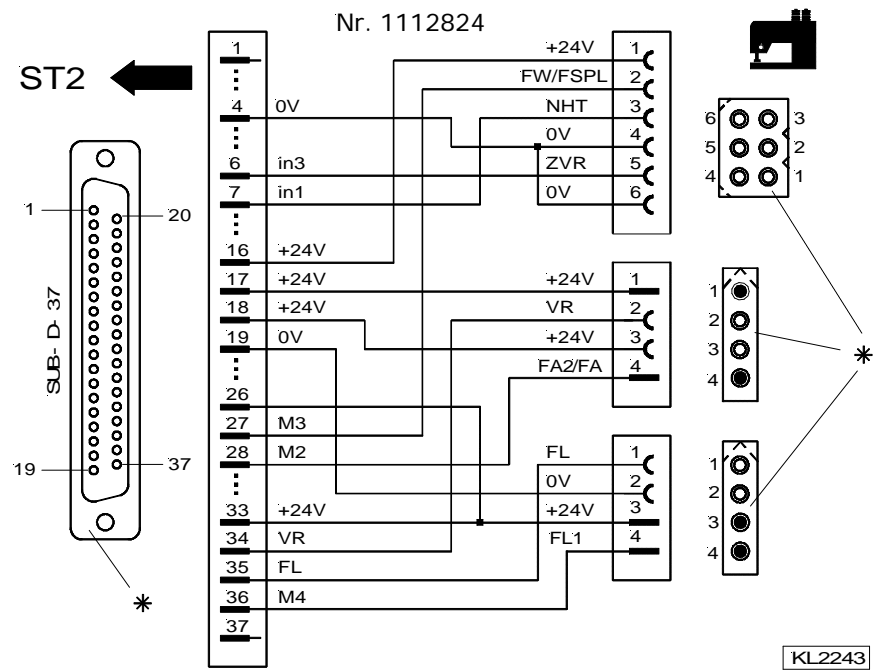
Adapter cord for UNION SPECIAL models CS100 and FS100

Setting the functional sequence	Thread trimming mode	➔	Set parameter 290	=	4
Setting the functions of the keys	Input in1	➔	Set parameter 240	=	6
	Input in3	➔	Set parameter 242	=	6

Nr. 1112905
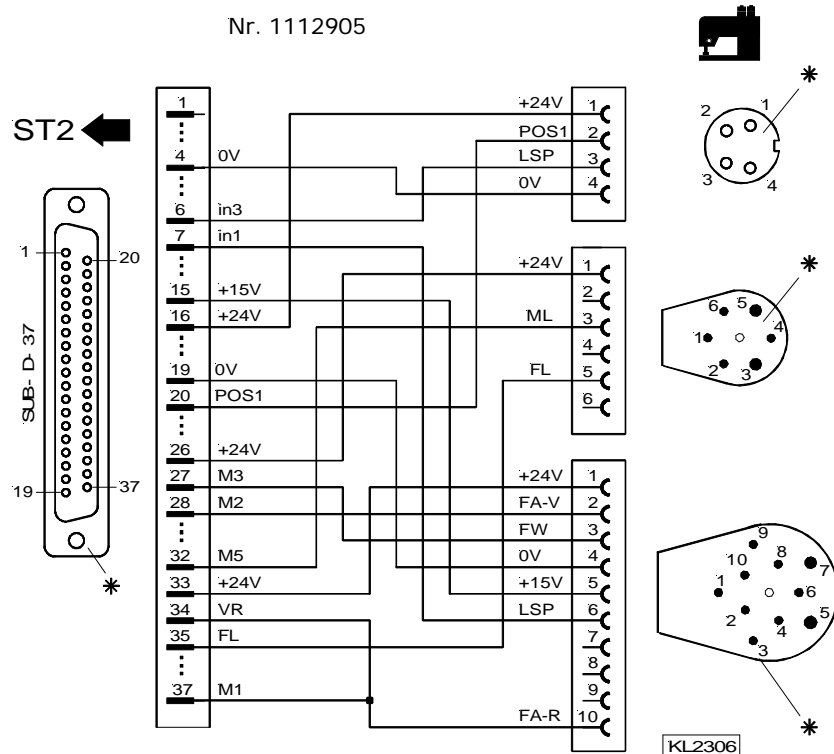
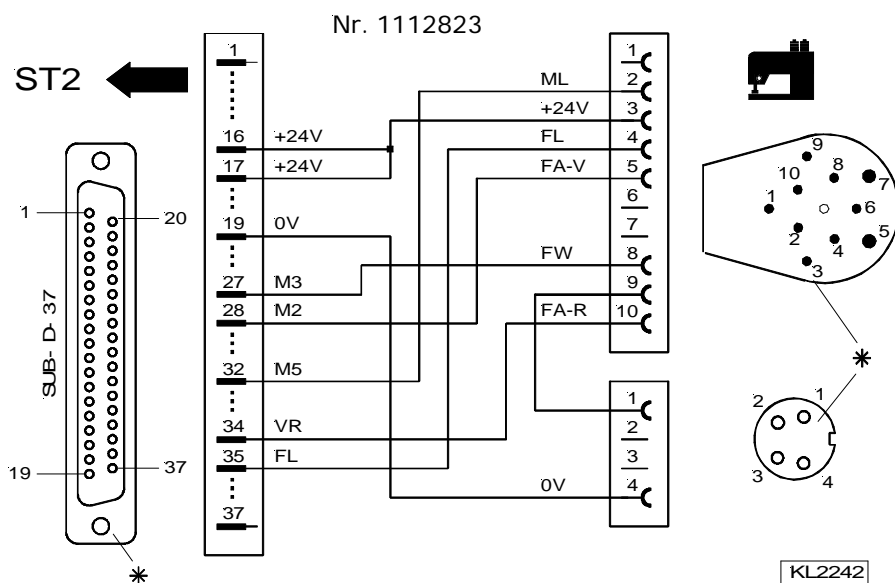**in1** = Input **machine run blockage** for thread trimming control proximity switch
in3 = Input **machine run blockage** for thread monitor

Adapter cord for UNION SPECIAL model 63900AMZ

Setting the functional sequence	Thread trimming mode	➔	Set parameter 290	=	10

Nr. 1112823

*)   Rear view (soldering side) of 37-pin plug (ST2) and of the remaining sockets.

Adapter cord for UNION SPECIAL model 34700 with stitch lock

Setting the functional sequence	Thread trimming mode	➜	Set parameter 290	=	5
Setting the functions of the keys	Input in8	➜	Set parameter 247	=	7
	Input in9	➜	Set parameter 248	=	6
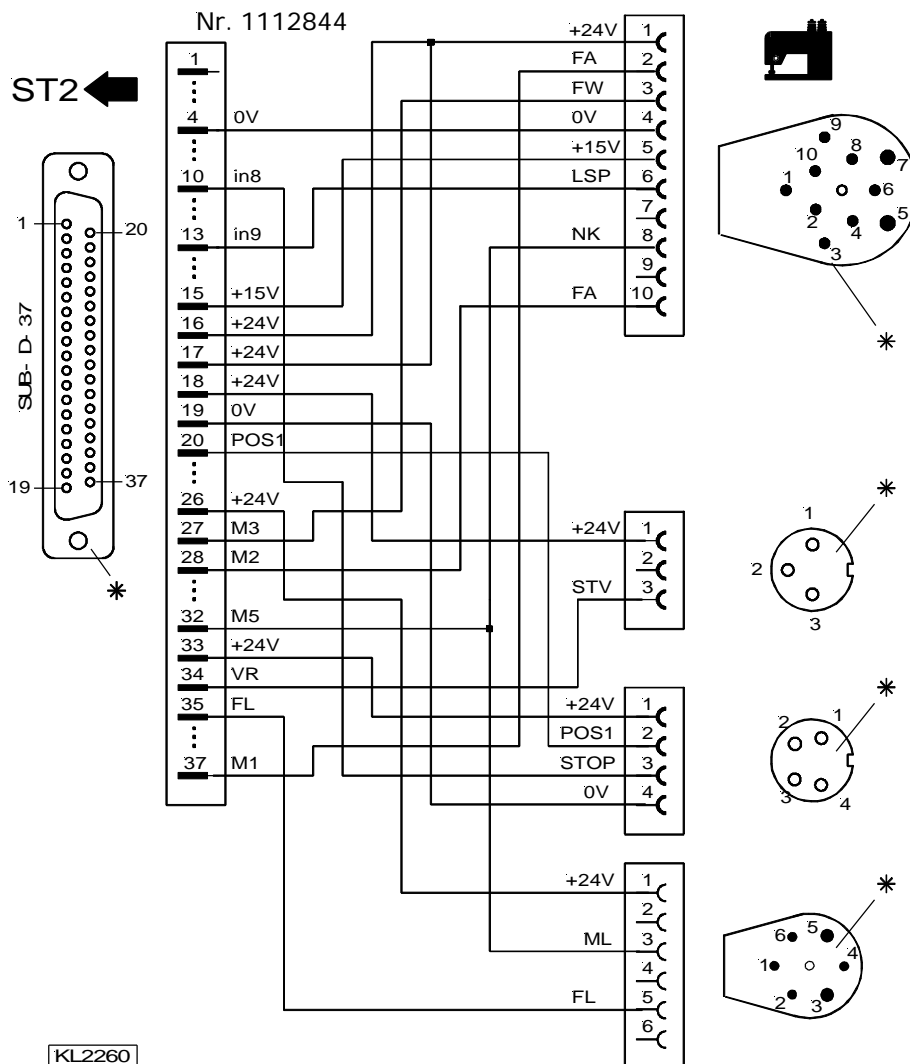
*)   Rear view (soldering side) of 37-pin plug (ST2) and of the remaining sockets.

Adapter cord for UNION SPECIAL models 34000 and 36200

Setting the functional sequence	Thread trimming mode	➔	Set parameter 290	= 4
Setting the functions of the keys	Input in1	➔	Set parameter 240	= 6
	Input in3	➔	Set parameter 242	= 6
	Input in4	➔	Set parameter 243	= 18
	Input in5	➔	Set parameter 244	= 12
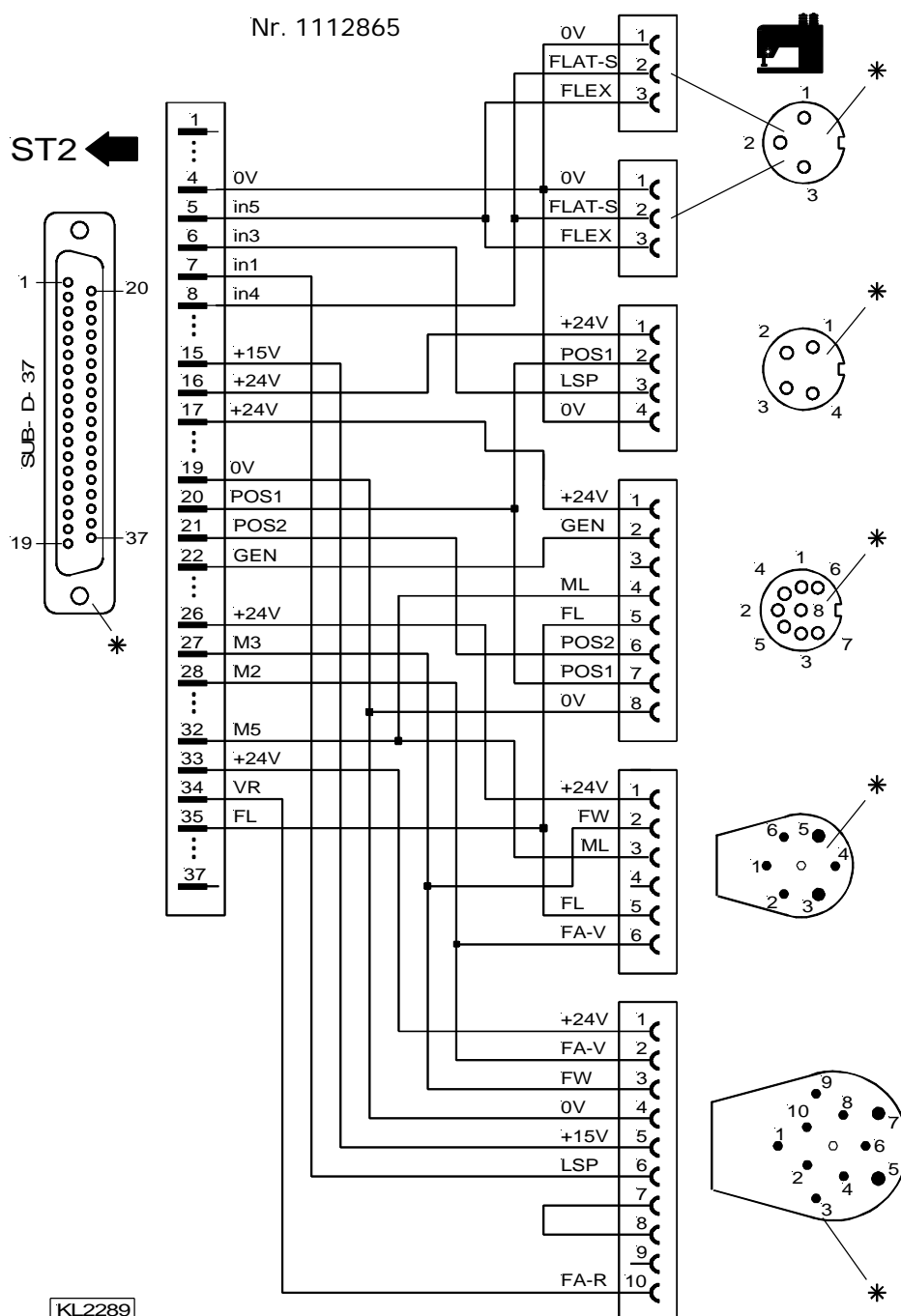
in1 = Input **machine run blockage** for thread trimming control proximity switch
in3 = Input **machine run blockage** for thread monitor
in4 = Input **unlocking the chain** corresponds to function **flatseamer (FLAT-S)**
in5 = Input **sewing foot lift with pedal in pos. 0 (neutral)**

*)   Rear view (soldering side) of 37-pin plug (ST2) and of the remaining sockets.

Adapter cord for YAMATO chainstitch machines VC/VG series

Setting the functional sequence	Thread trimming mode	➔	Set parameter 290	= 5/21
Setting the functions of the keys	Input in1	➔	Set parameter 240	= 7

*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

**Adapter cord for YAMATO backlatch machine model ABT3**

Setting the functional sequence	Thread trimming mode	➔	Set parameter 290	=	9
Setting the functions of the keys	Input in1	➔	Set parameter 240	=	6
(Automatic setting)	Input in3	➔	Set parameter 242	=	10

Adapter cord for YAMATO backlatch machine models ABT13 and ABT17

Setting the functional sequence	Thread trimming mode	➔	Set parameter 290	=	9
Setting the functions of the keys	Input in1	➔	Set parameter 240	=	6
(Automatic setting)	Input in3	➔	Set parameter 242	=	38
	Input in4	➔	Set parameter 243	=	34

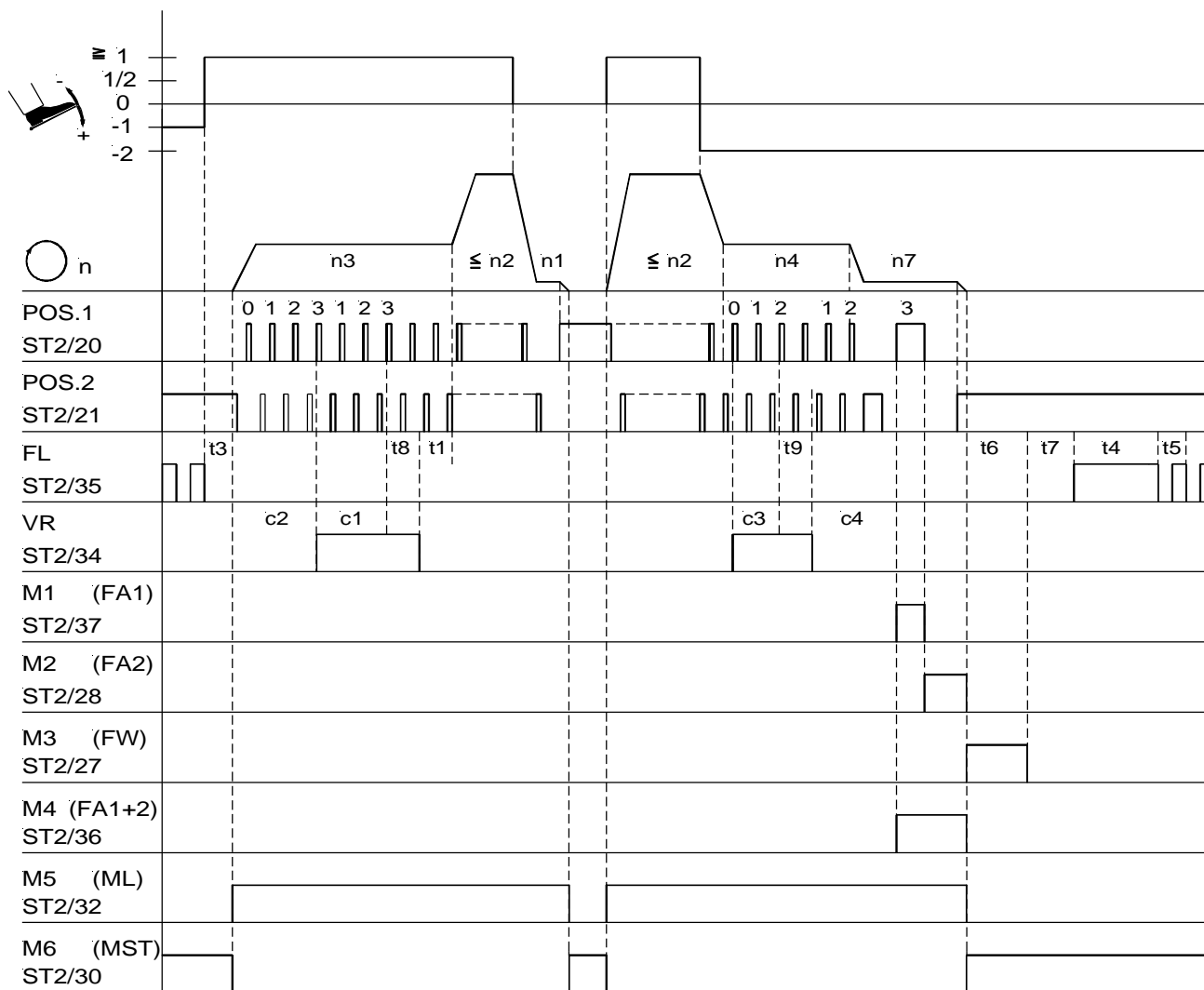***)**   Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

8 Timing Diagrams

Mode 0 and/or 27 (lockstitch)

0256/ MODE- 0

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 0		290 = 0/27			
	Double start backtack with stitch correction	On		Key S2	Key 1	Key 1
	Double end backtack with stitch correction	On		Key S3	Key 2	Key 4
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
c2	Start backtack stitches forward		000			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
c4	End backtack stitches forward		003			
t8	Start backtack stitch correction		150			
t9	End backtack stitch correction		151			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			
t6	Thread wiper ON period		205			
t7	Sewing foot switch-on delay after thread wiper		206			

Mode 2 (lockstitch)
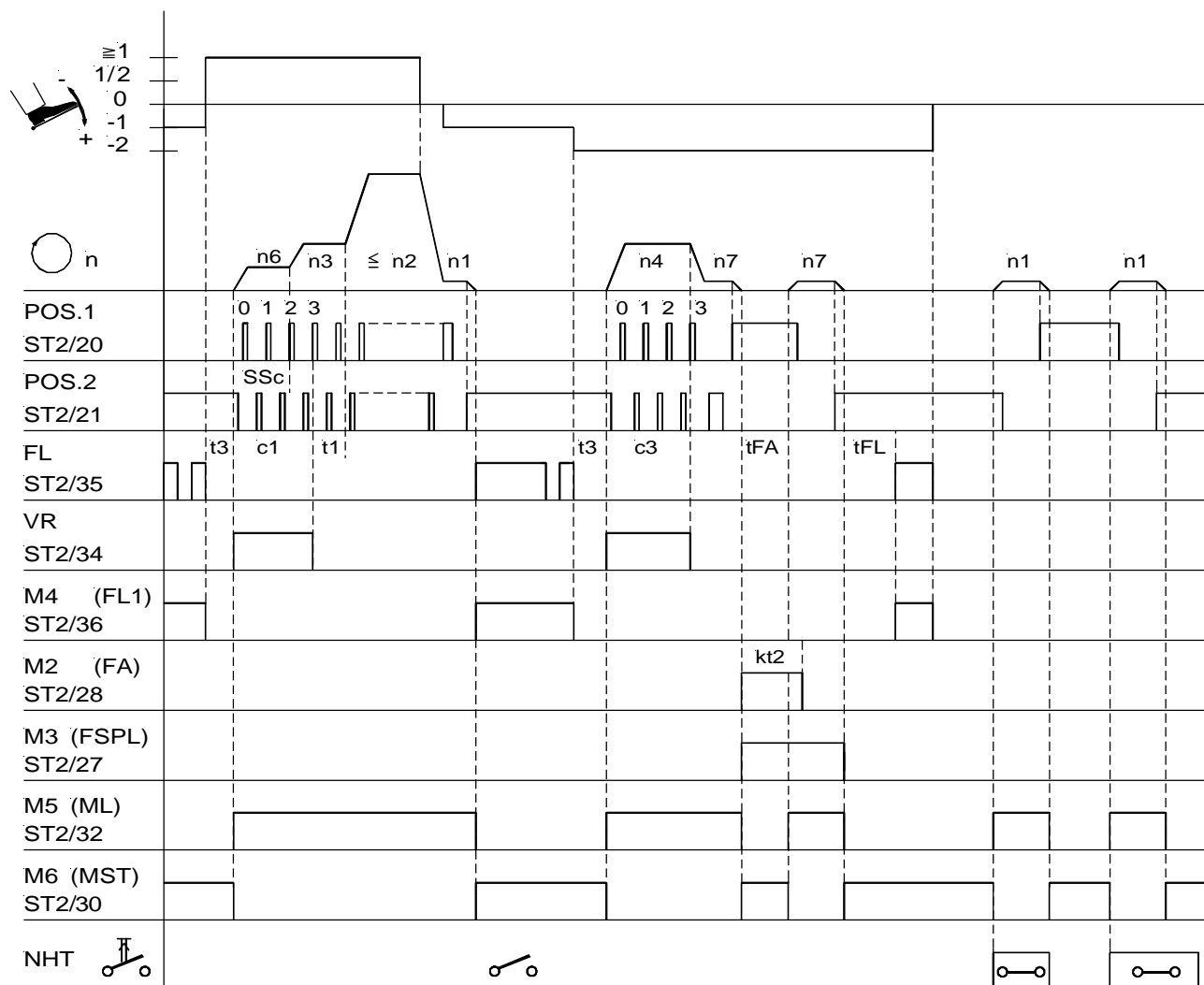
0256/ MODE- 2

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 2		290 = 2			
SSt	Softstart		134 = 1			
	Single start backtack	On		Key S2	Key 1	Key 1
	Single end backtack	On		Key S3	Key 2	Key 4
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n6	Softstart speed		115			
n7	Trimming speed		116			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
SSc	Softstart stitches		100			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
tFL	Switch-on delay of sewing foot lifting		211			
tFA	Stop time for thread trimmer		253			
kt2	Thread trimmer ON period		283			

Mode 3 and/or 26 (lockstitch)
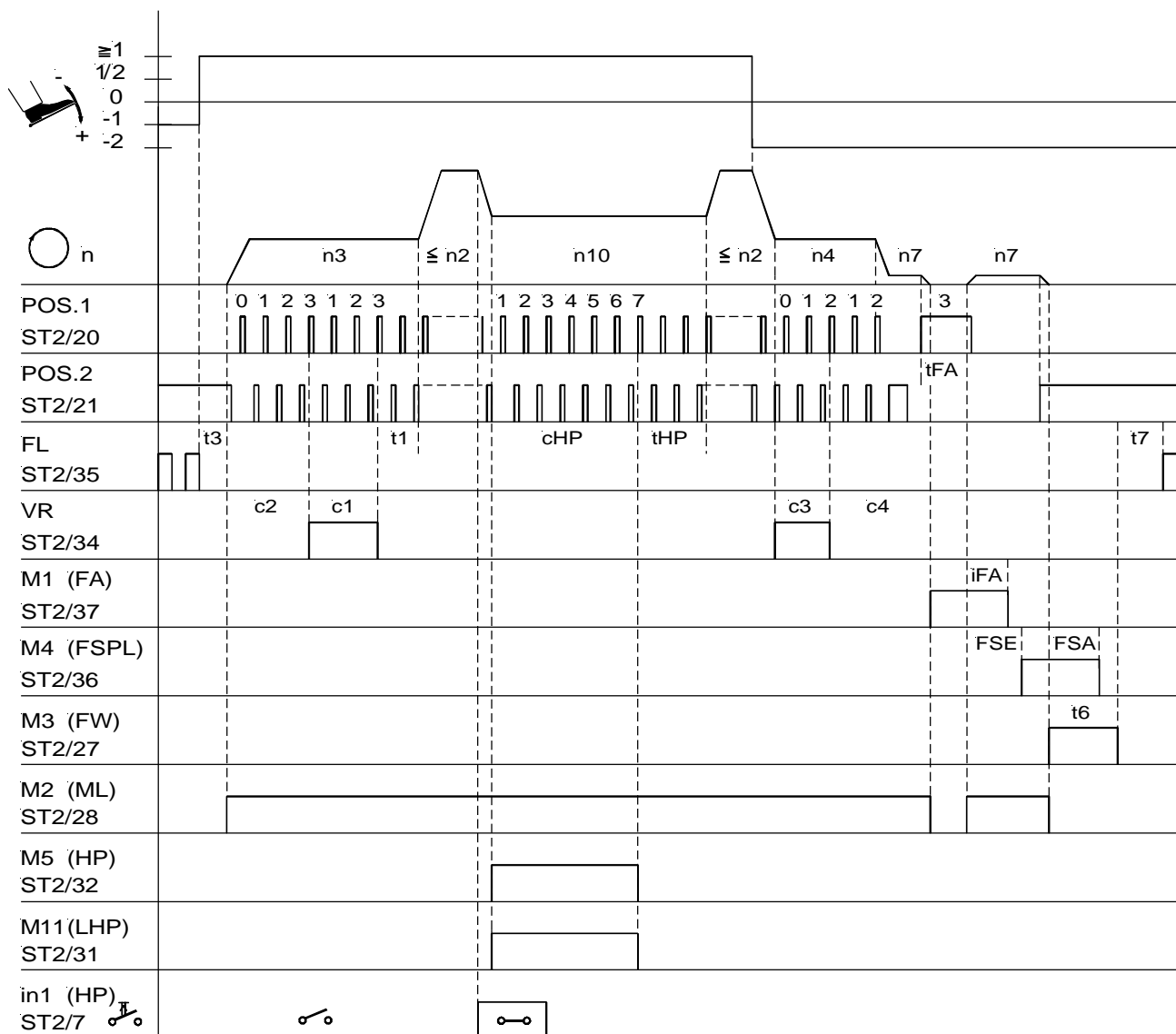
0256/ MODE- 3

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 3 and/or 26		290 = 3/26			
	Double start backtack	On		Key S2	Key 1	Key 1
	Double end backtack	On		Key S3	Key 2	Key 4
hP	High lift for walking foot		137 = 1			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
n10	High lift walking speed		117			
c2	Start backtack stitches forward		000			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
c4	End backtack stitches forward		003			
tHP	High lift walking speed run-out time		152			
cHP	Stitch counting high lift for walking foot		185			
t6	Thread wiper ON period		205			
t7	Sewing foot switch-on delay after thread wiper		206			
iFA	Activation angle of the thread trimmer		250			
FSA	Switch-off delay of thread tension release		251			
FSE	Switch-on delay angle of thread tension release		252			
tFA	Stop time for thread trimmer		253			

Mode 4 (chainstitch)
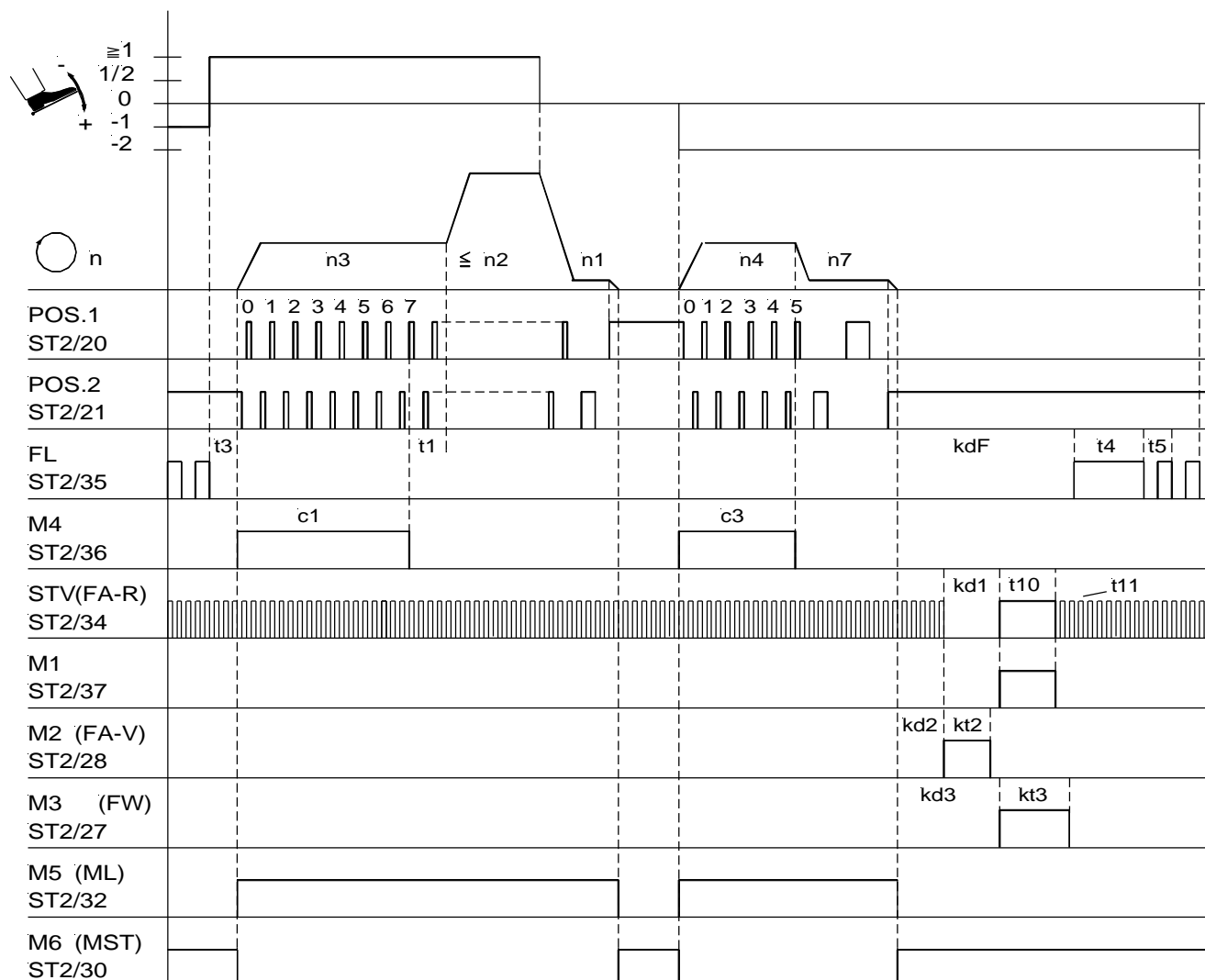
0256/ MODE- 4

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 4		290 = 4			
	Start stitch condensing	On		Key S2	Key 1	Key 1
	End stitch condensing	On		Key S3	Key 2	Key 4
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
n12	Automatic speed		118			
c1	Stitch counting of start stitch condensing		001			
c3	Stitch counting of end stitch condensing		002			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
t10	Full power of thread trimmer backward		212			
t11	Holding power output "stitch condensing" of the thread trimmer backward		213			
kd1	Delay time of the thread trimmer backward		280			
kt1	ON period of the thread trimmer backward		281			
kd2	Delay time of the thread trimmer forward M2		282			
kt2	ON period of the thread trimmer forward M2		283			
kd3	Delay time of the thread wiper M3		284			
kt3	ON period of the thread wiper M3		285			
kdF	Switch-on delay of sewing foot lifting		288			

Mode 5 (chainstitch)
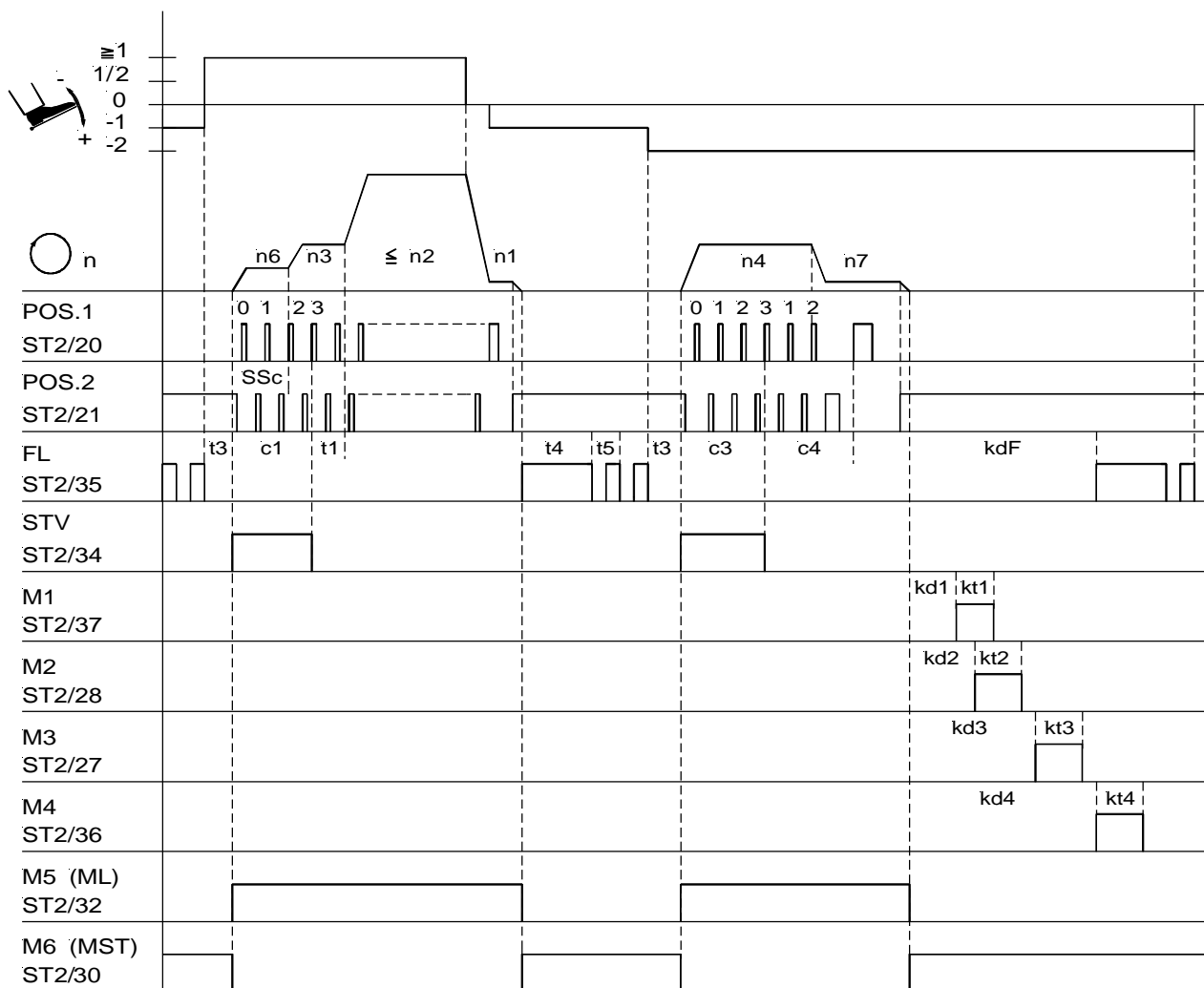
0256/ MODE- 5

Mark	Function		Parameter	Control	V810	V820
	Mode 5		290 = 5			
	Softstart		134 = 1			
	Start stitch condensing	On		Key S2	Key 1	Key 1
	End stitch condensing	On		Key S3	Key 2	Key 4
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Start stitch condensing speed		112			
n4	End stitch condensing speed		113			
n6	Softstart speed		115			
n7	Trimming speed		116			
c1	Stitch counting of start stitch condensing		001			
c3	Stitch counting of end stitch condensing		002			
c4	Stitch counting at the seam end without stitch regulator		003			
SSc	Softstart stitches		100			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			
kdF	Switch-on delay of sewing foot lifting		288			
kd1-kd4	Delay times of outputs M1...M4		280/2/4/6			
kt1-kt4	ON periods of outputs M1...M4		281/3/5/7			

Mode 5 (chainstitch) Union Special, bag sewing machine
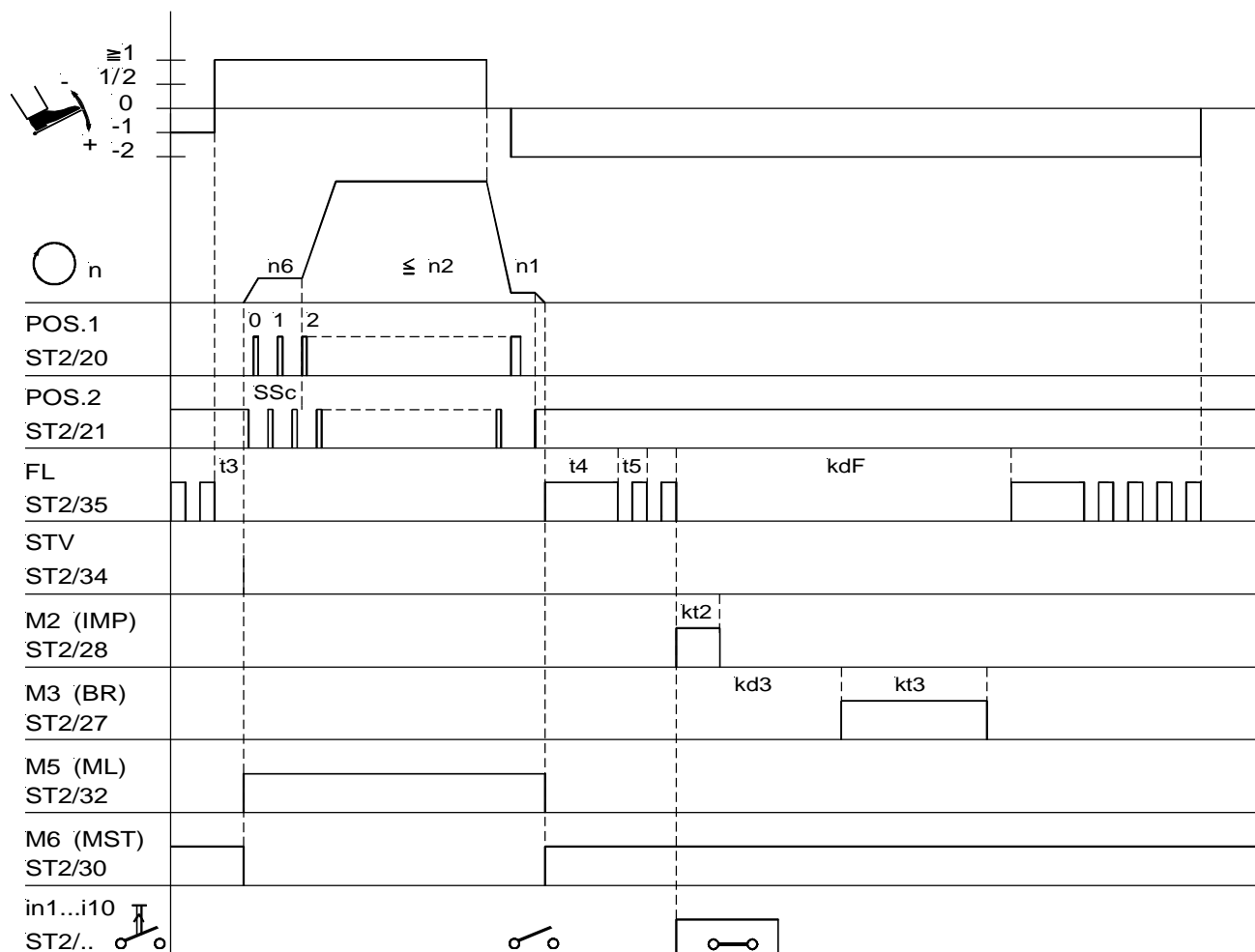
0256/ MODE- 5a

Mark	Function	Parameter	Control	V810	V820
FAm	Mode 5	290 = 5			
SSt	Softstart	134 = 1			
SAk	"Hot thread chain cutting" by means of knee switch and sewing foot lift by means of pedal	198 = 1			
in1...i10	Function "hot thread chain cutting" (M3) by means of knee switch	2.. = 42			
n1	Positioning speed	110			
n2	Maximum speed	111			
n6	Softstart speed	115			
SSc	Softstart stitches	100			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
kd2	Delay time for output M2	282 = 0			
kt2	ON period for output M2	283 = 50ms			
kd3	Delay time for output M3	284 = 1500ms			
kt3	ON period for output M3	285 = 1400ms			
kdF	Switch-on delay of sewing foot lifting	288 = 2550ms			

Settings using parameter 198:

Parameter 198 = 0   The signals **hot thread chain cutting** and **sewing foot lift** are enabled by means of pedal.

Parameter 198 = 1   The signal **hot thread chain cutting** is enabled by means of knee switch and **sewing foot lift** by means of pedal.

Parameter 198 = 2   The signal **hot thread chain cutting** is enabled by means of pedal and **sewing foot lift** by means of knee switch.

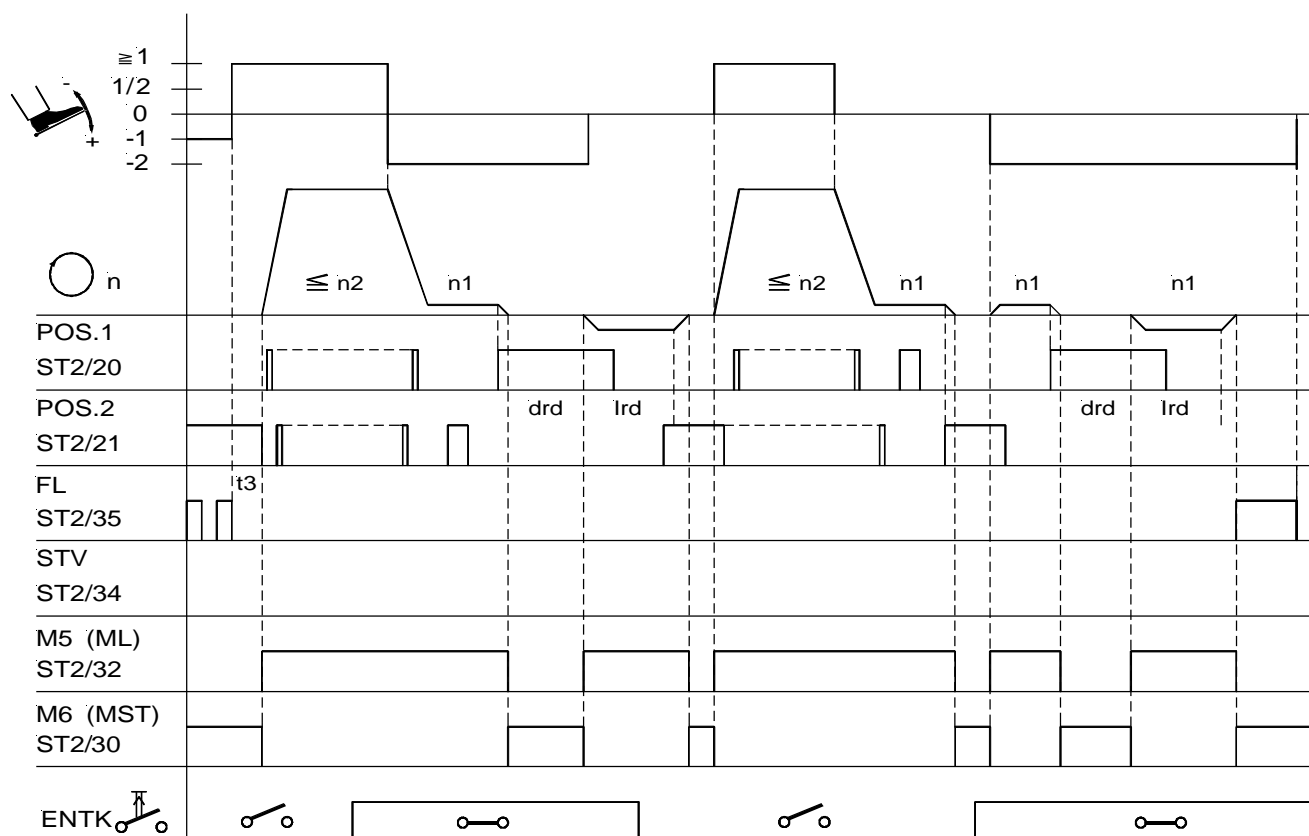**Mode 4, 5, 6 or 7 (function "unlocking the chain" with light barrier)**
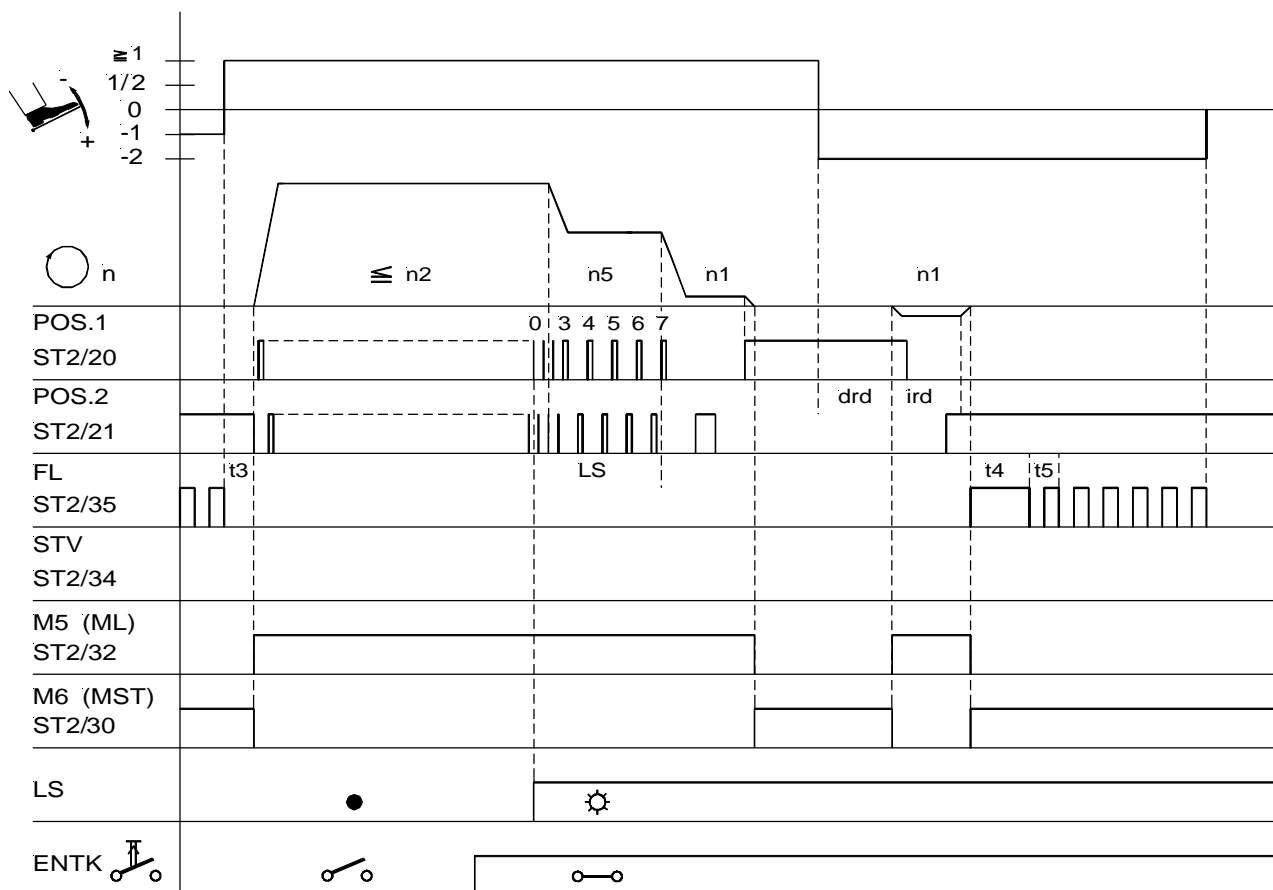
0256/ ENTK- 1

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 5		290 = 5			
drE	Direction of motor rotation	Clockwise	161 = 0			
Frd	Reverse motor rotation		182 = 1			
	Basic position 2	On		Key S5	Key 4	Key 7
	End stitch condensing and thread trimmer *)	On				
LS	Light barrier		009 = ON			
mEk	Unlock the chain automatically with light barrier		190 = 2			
in7	Machine run blockage effective with open contact		246 = 6			
in8	Automatic speed n12 without pedal		247 = 10			
in..	Assign the function "unlocking the chain" to an output		2..			
n1	Positioning speed		110			
n2	Maximum speed		111			
n5	Speed after light barrier sensing		114			
LS	Light barrier compensating stitches		004			
ird	Number of reversing increments		180			
drd	Switch-on delay of reverse motor rotation		181			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			
tGn	Speed gate damping period		222			
dGF	Speed gate 2		224 = 1			
kdF	Switch-on delay of sewing foot lifting		288			

*) 	When unlocking the chain, the functions "stitch condensing" and "thread trimmer" are suppressed!

Mode 4, 5, 6 or 7 (function "unlocking the chain")


0256/ ENTK- 2

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 5		290 = 5			
drE	Direction of motor rotation	Clockwise	161 = 0			
Frd	Reverse motor rotation		182 = 1			
	Basic position 2	On		Key S5	Key 4	Key 7
	End stitch condensing and thread trimmer *)	On				
in7	Machine run blockage effective with open contact		246 = 6			
in8	Automatic speed n12 without pedal		247 = 10			
in..	Assign the function "unlocking the chain" to an output		2..			
n1	Positioning speed		110			
n2	Maximum speed		111			
ird	Number of reversing increments		180			
drd	Switch-on delay of reverse motor rotation		181			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			
tGn	Speed gate damping period		222			
dGF	Speed gate 2		224 = 1			

*)   When unlocking the chain, the functions "stitch condensing" and "thread trimmer" are suppressed!

Mode 6 (chainstitch with fast scissors) parameter 232 = 1
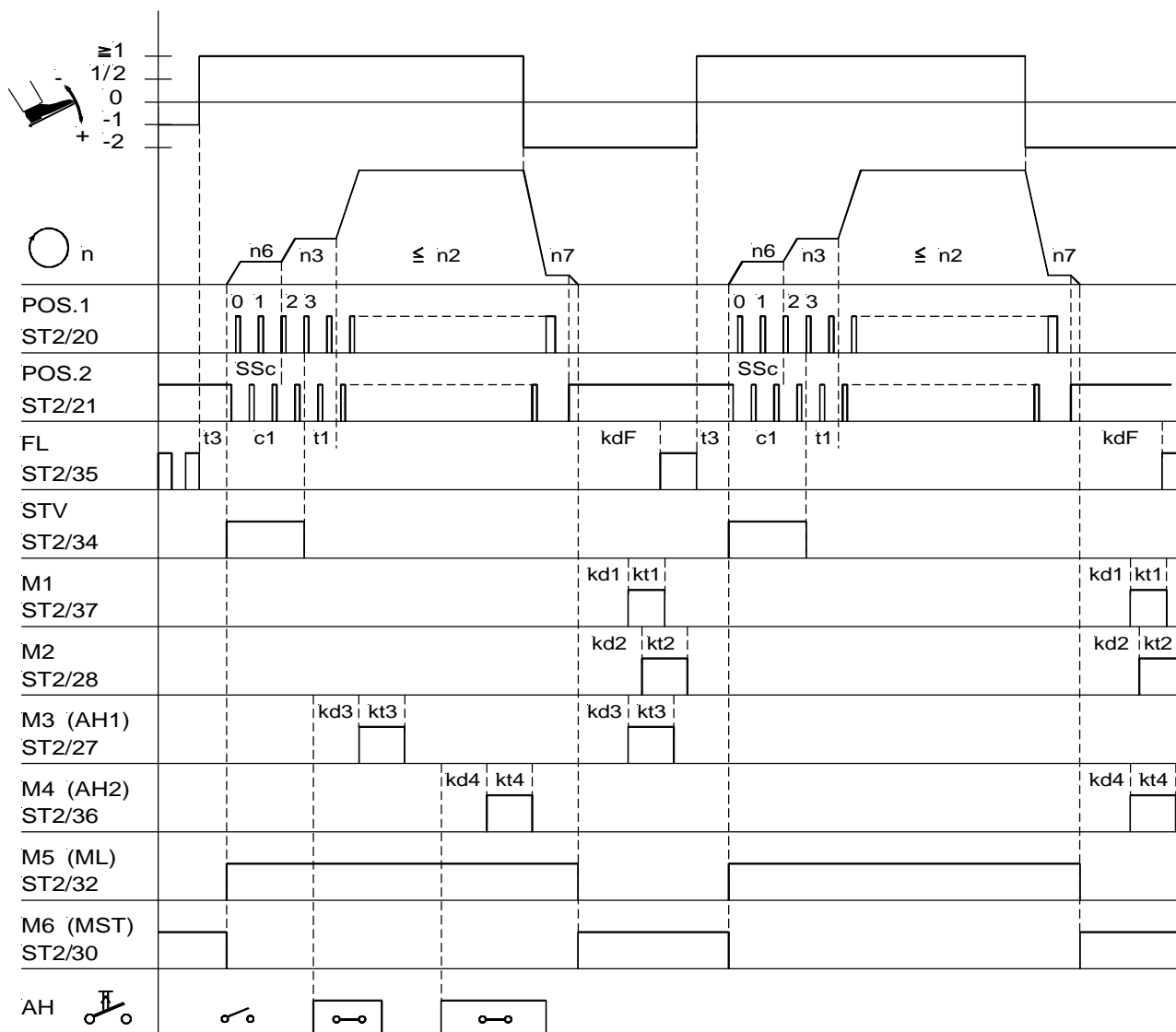
0256/ MODE- 6

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 6		290 = 6			
SSt	Softstart		134 = 1			
	Start stitch condensing	On		Key S2	Key 1	Key 1
USS	Chainstitch with fast scissors M3/M4		232 = 1			
n2	Maximum speed		111			
n3	Start stitch condensing speed		112			
n6	Softstart speed		115			
n7	Trimming speed		116			
c1	Stitch counting of start stitch condensing		001			
SSc	Softstart stitches		100			
t1	Delay until speed release after stitch condensing		200			
t3	Start delay from lifted sewing foot		202			
kd1/kd2	Delay times of outputs M1/M2		280/282			
kt1/kt2	ON periods of outputs M1/M2		281/283			
kd3/kd4	Delay times of outputs M3/M4 (AH1/AH2)		284/286			
kt3/kt4	ON periods of outputs M3/M4 (AH1/AH2)		285/287			
kdF	Switch-on delay of sewing foot lifting		288			

Mode 7 (overlock) parameter 232 = 0 (tape cutter) / parameter 018 = 0 (seam end with stop)
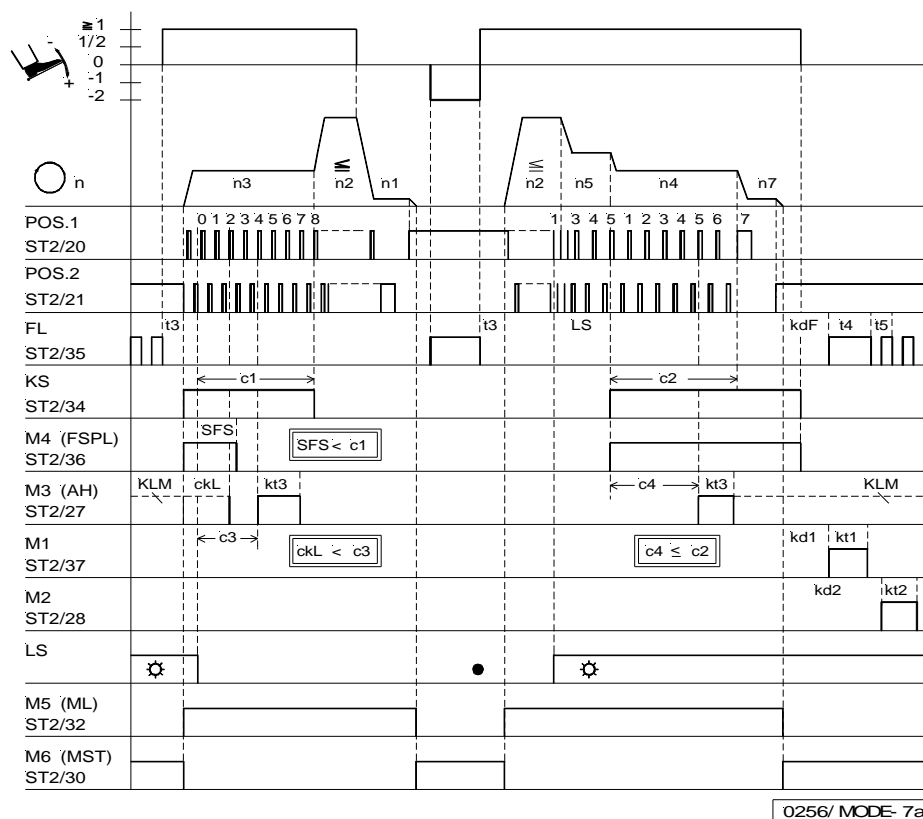
0256/ MODE- 7a

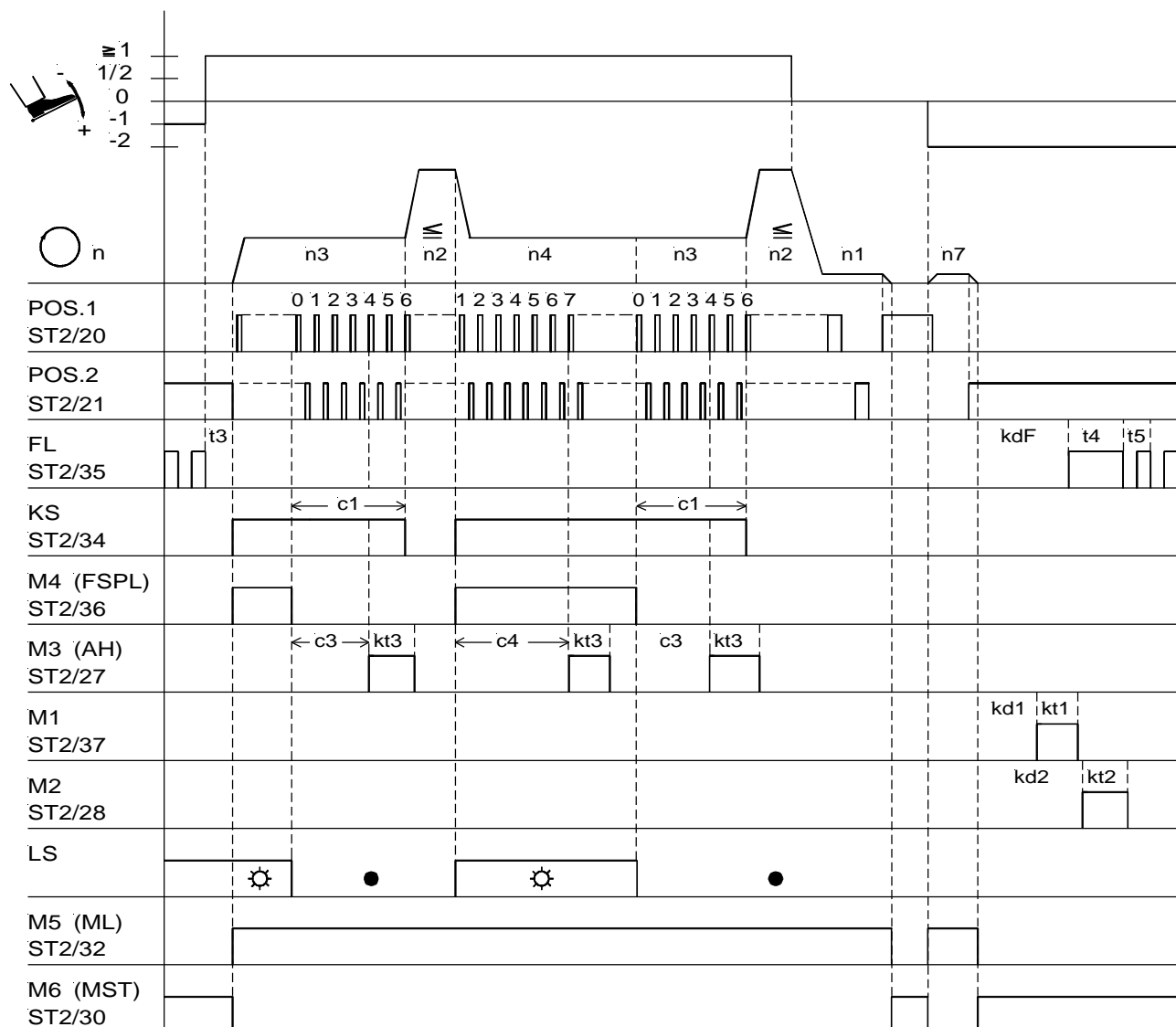| Mark	Function		Parameter	Control	V810	V820
FAm	Mode 7		290 = 7			
	Counts c1, c2, c3 and c4	On		Key S2/3	Key 1/2	Key 1/4
	Sewing foot lifting at the seam end	On		Key S4	Key 3	Key 6
LS	Light barrier		009 = 1			
UoS	Sequence "overlock mode with stop"		018 = 0			
-Pd	Function "pedal in pos. –2" blocked		019 = 2			
kLm	Clamp at the seam end On		020 = 1			
SPO	Chain suction at the seam end until pedal in pos. 0		022 = 1			
tFS	Beginning of thread tension release at the start of the seam		025 = 0			
LSS	Start blockage with light barrier uncovered		132 = 0			
kSA	Stitch counting at the start of the seam at fixed speed n3		143 = 0			
kSE	Stitch counting at the seam end at fixed speed n4		144 = 0			
mhE	Seam end after count c2		191 = 1			
PLS	Speed n5 after light barrier sensing		192 = 0			
kSL	Chain suction On after light barrier compensating stitches		193 = 0			
USS	Tape cutter function		232 = 0			
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Speed for start counting		112			
n4	Speed for end counting		113			
n5	Speed after light barrier sensing		114			
n7	Trimming speed		116			
c2	End counting for chain suction		000			
c1	Start counting for chain suction		001			
c3	Start counting for tape cutter		002			
c4	End counting for tape cutter		003			
LS	Light barrier compensating stitches		004			
ckL	Run-out stitches clamp at the start of the seam		021			
SFS	Stitches from light barrier uncovered until end of thread tension release (M4)		157			
kd1/kd2	Delay times of outputs M1/M2		280/282			
kt1/kt2	ON periods of outputs M1/M2		281/283			
kt3	ON period of tape cutter		285			
kdF	Switch-on delay of sewing foot lifting		288			

Mode 7 (overlock) parameter 232 = 1 (fast scissors) / parameter 018 = 0 (seam end with stop)

0256/ MODE- 7c

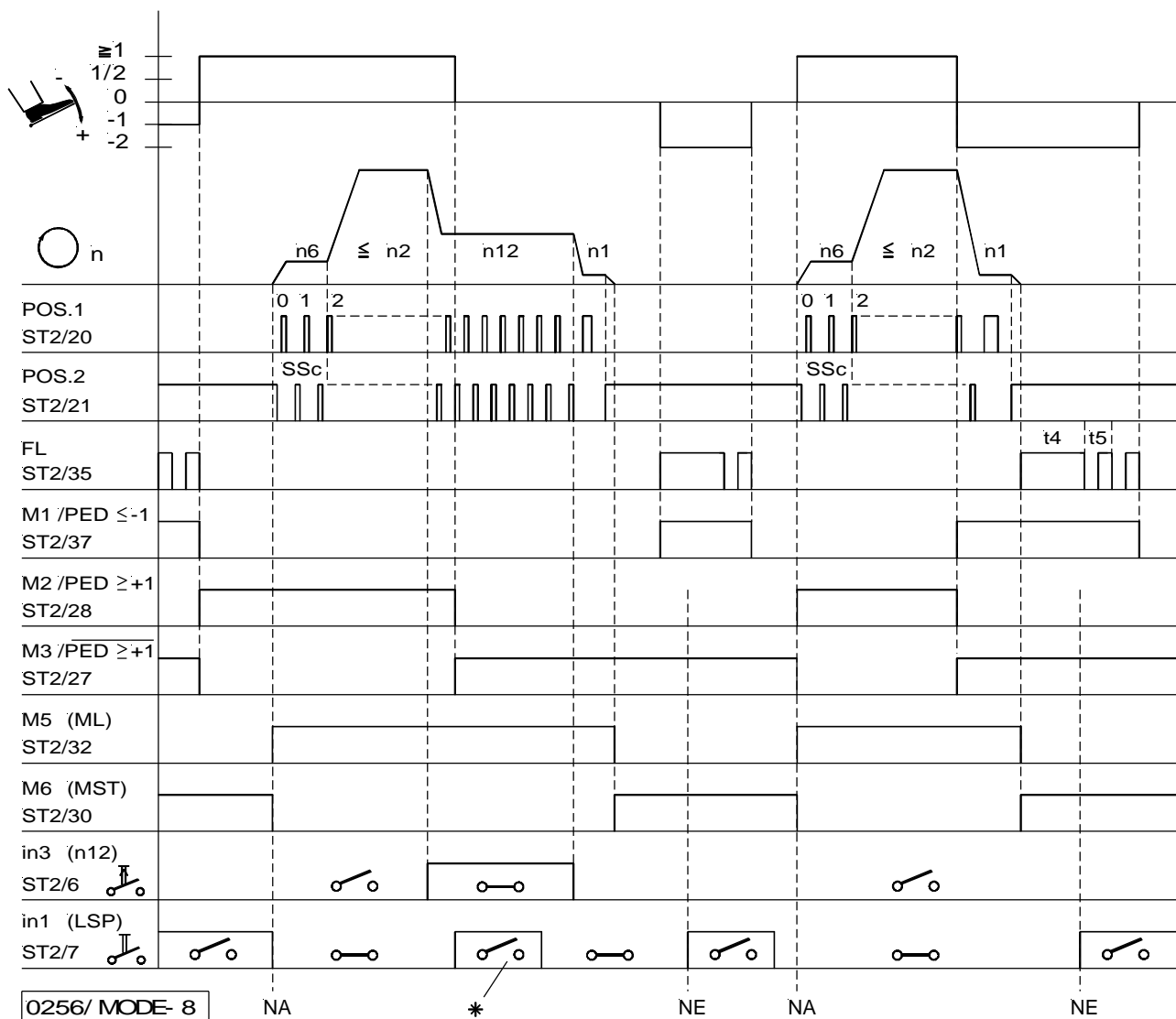| Mark	Function		Parameter	Control	V810	V820
FAm	Mode 7		290 = 7			
	Counts c1, c2, c3 and c4	On		Key S2/3	Key 1/2	Key 1/4
	Sewing foot lifting at the seam end	On		Key S4	Key 3	Key 6
LS	Light barrier		009 = 1			
UoS	Sequence "overlock mode with stop"		018 = 0			
-Pd	Function "pedal in pos. –2" blocked		019 = 2			
kLm	Clamp at the seam end Off		020 = 0			
SPO	Chain suction at the seam end until pedal in pos. 0		022 = 1			
LSS	Start blockage with light barrier uncovered		132 = 0			
kSA	Stitch counting at the start of the seam at fixed speed n3		143 = 0			
kSE	Stitch counting at the seam end at fixed speed n4		144 = 0			
mhE	Seam end after count c2		191 = 1			
PLS	Speed n5 after light barrier sensing		192 = 0			
kSL	Chain suction On after light barrier compensating stitches		193 = 0			
USS	Function "fast scissors"		232 = 1			
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Speed for start counting		112			
n4	Speed for end counting		113			
n5	Speed after light barrier sensing		114			
n7	Trimming speed		116			
c2	End counting for chain suction		000			
c1	Start counting for chain suction		001			
c3	Start counting for tape cutter		002			
c4	End counting for tape cutter		003			
LS	Light barrier compensating stitches		004			
kd1	Delay time of output M1		280			
kd2	Delay time of output M2		282 = 0			
kt1/kt2	ON periods of outputs M1/M2		281/283			
kt3	ON period of tape cutter		285			
kdF	Switch-on delay of sewing foot lifting		288			

Mode 7 (overlock) parameter 232 = 0 (tape cutter) / parameter 018 = 1 (seam end without stop)

0256/ MODE- 7b

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 7		290 = 7			
	Counts c1, c2, c3 and c4	On		Key S2/3	Key 1/2	Key 1/4
LS	Light barrier compensating stitches		004 = 0			
LS	Light barrier		009 = 1			
UoS	Sequence "overlock mode at the seam end without stop"		018 = 1			
-Pd	Function "pedal in pos. −1/−2" activated in the seam		019 = 3			
SPO	Chain suction at the seam end until pedal in pos. 0		022 = 1			
kSA	Stitch counting at the start of the seam at fixed speed n3		143 = 1			
kSE	Stitch counting at the seam end at fixed speed n4		144 = 1			
USS	Tape cutter function		232 = 0			
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Speed for start counting		112			
n7	Trimming speed		116			
c1	Start counting for chain suction		001			
c3	Start counting for tape cutter		002			
c4	End counting for tape cutter		003			
t3	Start delay from lifted sewing foot		202			
kd1/kd2	Delay times of outputs M1/M2		280/282			
kt1/kt2	ON periods of outputs M1/M2		281/283			
kt3	ON period of tape cutter		285			
kdF	Switch-on delay of sewing foot lifting		288			

Mode 8 (backlatch Pegasus)

≧1
1/2
0
-1
-2

n

n6 ≦ n2 n12 n1 n6 ≦ n2 n1

POS.1
ST2/20

0 1 2 0 1 2

POS.2
ST2/21

SSc SSc

FL
ST2/35

t4 t5

M1 /PED ≤-1
ST2/37

M2 /PED ≥+1
ST2/28

M3 /PED ≥+1
ST2/27

M5 (ML)
ST2/32

M6 (MST)
ST2/30

in3 (n12)
ST2/6

in1 (LSP)
ST2/7

0256/ MODE- 8   NA   ✳   NE   NA   NE

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 8		290 = 8			
	Basic position 2	On		Key S5	Key 4	Key 7
SSt	Softstart		134 = 1			
in1	Machine run blockage activated with open switch		240 = 6			
in3	n-Auto with closed switch		242 = 10			
n1	Positioning speed		110			
n2	Maximum speed		111			
n6	Softstart speed		115			
n12	Automatic speed		118			
SSc	Softstart stitches		100			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			

*)   When automatic speed is On, machine run blockage (safety switch) does not work!
NA   Start of seam
NE   Seam end

Mode 9 (backlatch Yamato)

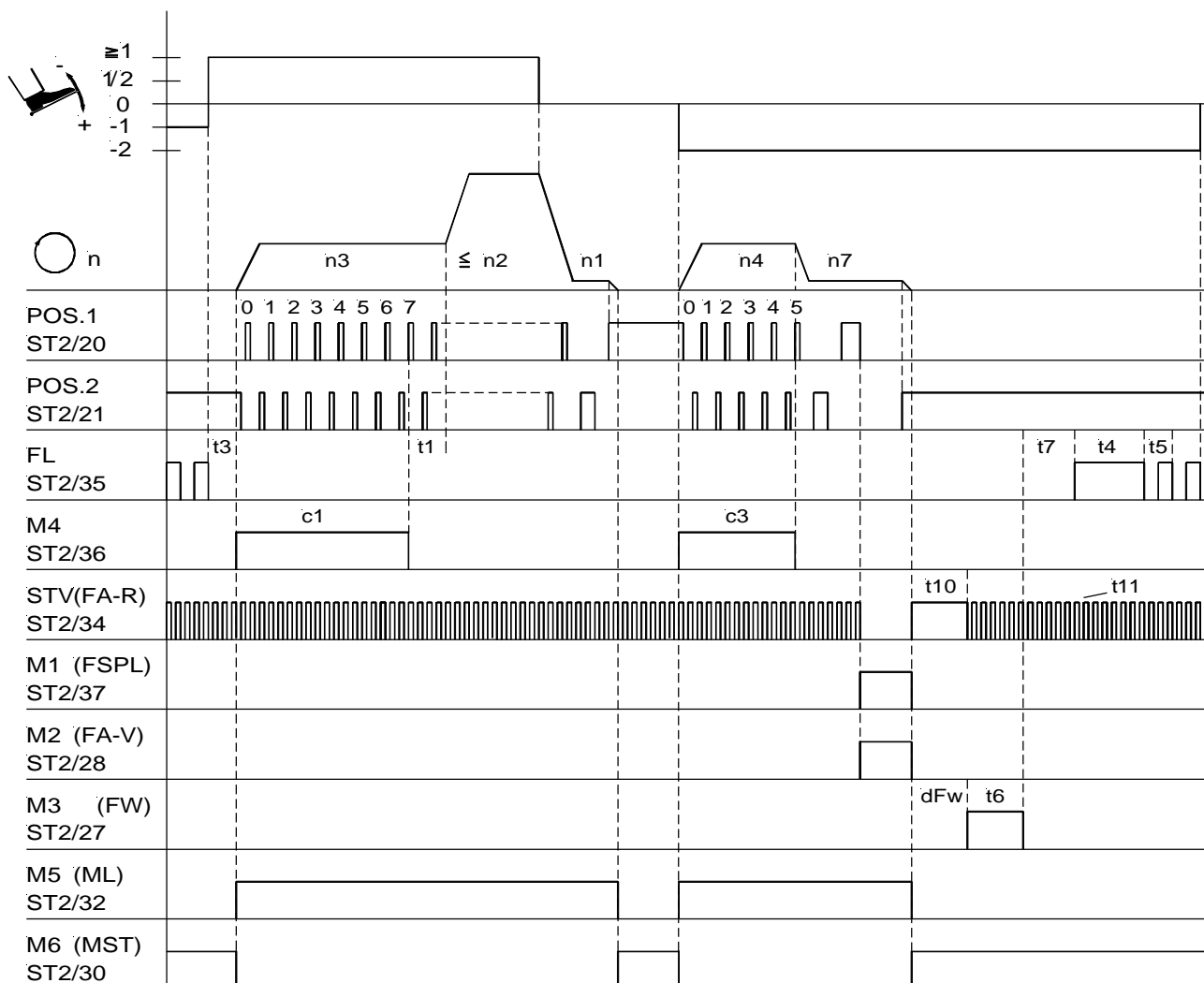| Mark	Function		Parameter	Control	V810	V820
FAm	Mode 9		290 = 9			
	Basic position 2	On		Key S5	Key 4	Key 7
SSt	Softstart		134 = 1			
in1	Machine run blockage activated with open switch		240 = 6			
in3	Automatic speed with open switch		242 = 10			
	(the function of input 3 is inverted in mode 9)					
PGm	Setting an external sensor to position 2		270 = 1			
	(A sensor must be connected!)					
n1	Positioning speed		110			
n2	Maximum speed		111			
n6	Softstart speed		115			
n12	Automatic speed		118			
SSc	Softstart stitches		100			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			

*)   With this setting, machine run blockage (safety switch) takes priority over automatic speed!
**)   Automatic speed n9 takes priority over machine run blockage (safety switch)!
NA   Start of seam
NE   Seam end

Mode 10 (lockstitch)

0256/ MODE- 10

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 10		290 = 10			
	Single start backtack	On		Key S2	Key 1	Key 1
	Single end backtack	On		Key S3	Key 2	Key 4
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			
t6	Thread wiper ON period		205			
t7	Switch-on delay of the sewing foot after thread wiper		206			
dFW	Switch-on delay of the thread wiper		209			
t10	Full power of thread trimmer backward		212			
t11	Holding power output "stitch condensing" of the thread trimmer backward		213			

Mode 13 (lockstitch / Pfaff 1425, 1525)
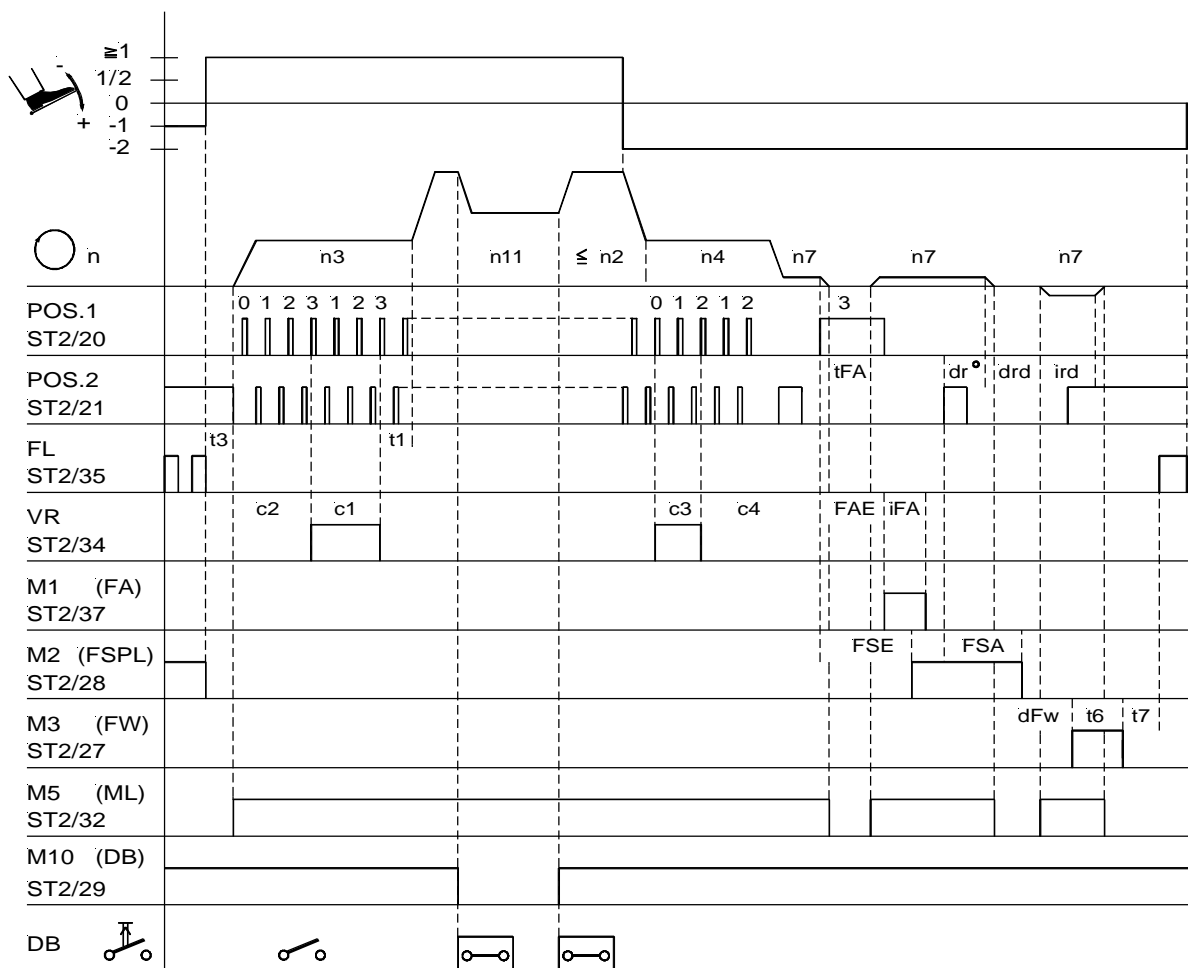
0256/ MODE- 13

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 13		290 = 13			
	Double start backtack	On		Key S2	Key 1	Key 1
	Double end backtack	On		Key S3	Key 2	Key 4
FFi	Function "speed limitation n11"		186 = 1			
FFo	Function of signal M10 after power On		187 = 1			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
n11	Limikted speed n11		123			
c2	Start backtack stitches forward		000			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
c4	End backtack stitches forward		003			
ird	Number of reversing increments		180			
drd	Switch-on delay of reverse motor rotation		181			
dr°	Stop for thread trimming depending on angle		197			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
t6	Thread wiper ON period		205			
t7	Switch-on delay of the sewing foot after thread wiper		206			
dFW	Switch-on delay of the thread wiper		209			
iFA	Activation angle of the thread trimmer		250			
FSA	Switch-off delay of thread tension release		251			
FSE	Switch-on delay angle of thread tension release		252			
tFA	Stop time for thread trimmer		253			
FAE	Switch-on delay angle of the thread trimmer		259			

Mode 14 (lockstitch)
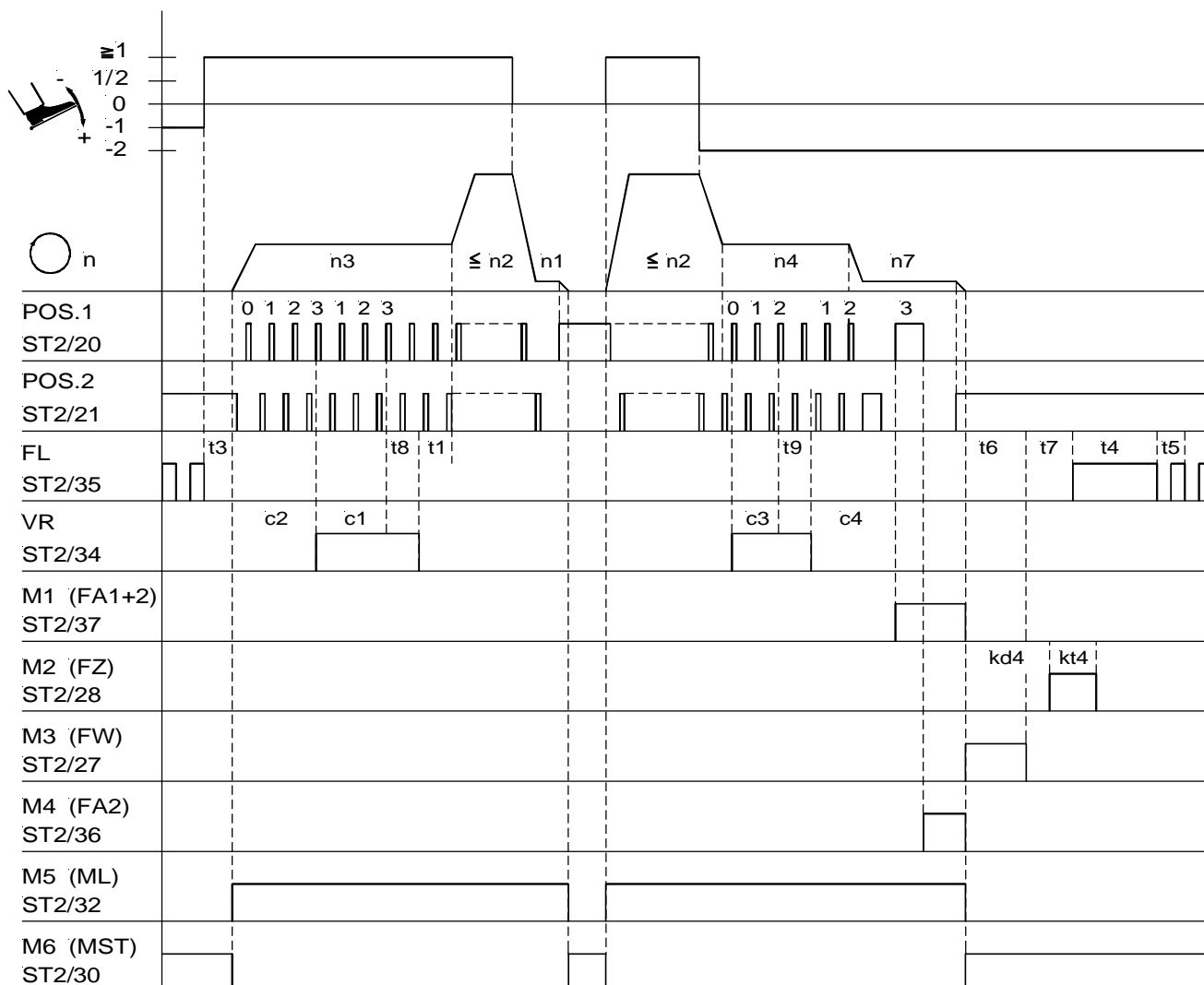
0256/MODE-14

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 14		290 = 14			
	Double start backtack with stitch correction	On		Key S2	Key 1	Key 1
	Double end backtack with stitch correction	On		Key S3	Key 2	Key 4
PGm	Setting an external sensor to position 1 (An external sensor must be connected!)		270 = 3			
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
c2	Start backtack stitches forward		000			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
c4	End backtack stitches forward		003			
t8	Start backtack stitch correction		150			
t9	End backtack stitch correction		151			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			
t6	Thread wiper ON period		205			
t7	Switch-on delay of the sewing foot after thread wiper		206			
kd4	Delay time output M2		286			
kt4	ON period output M2		287			

Mode 15 (Pegasus SSC100) sequence when high lift for walking foot is Off / start of seam with light barrier covered
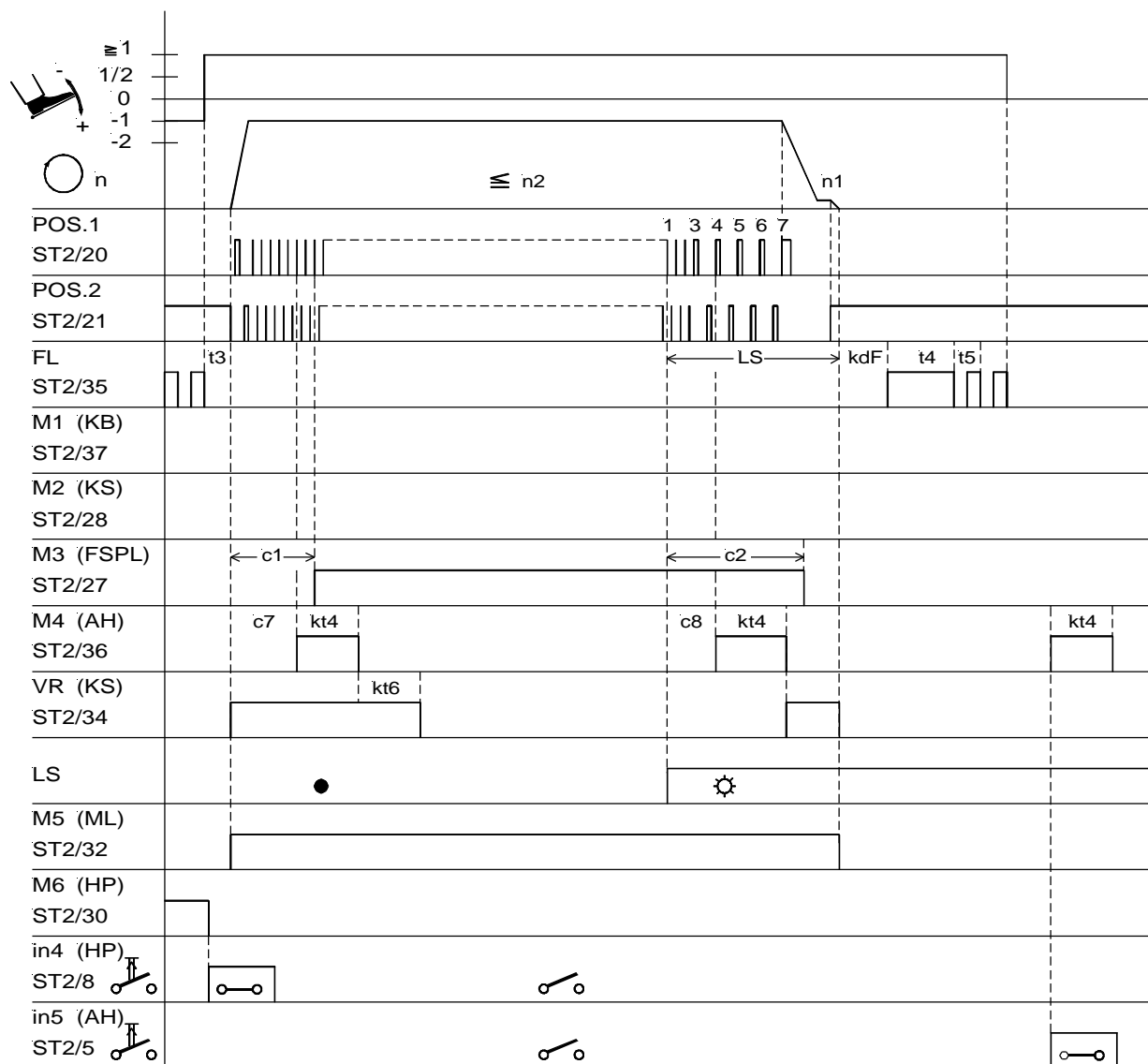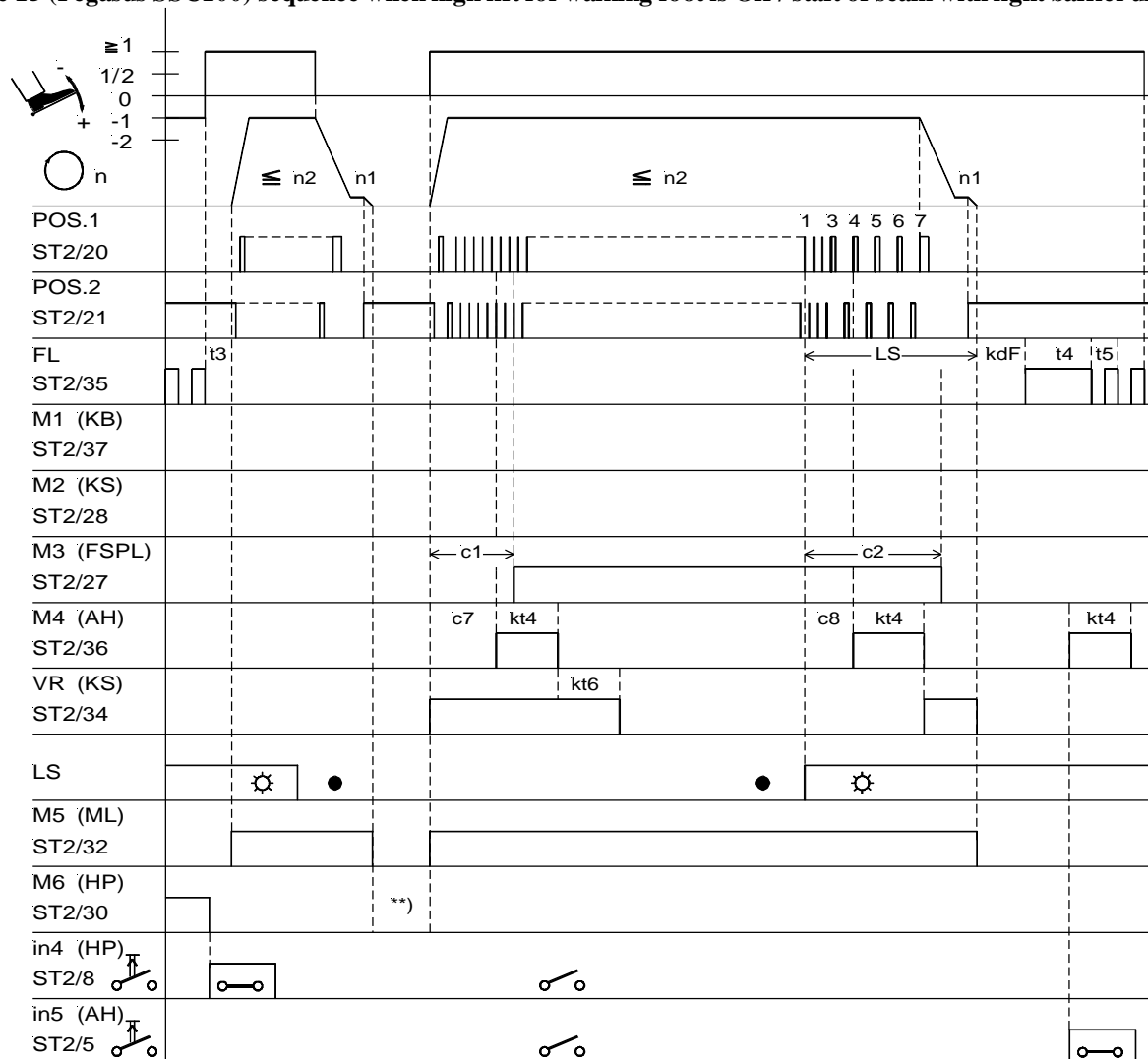

0256/ MODE- 15a

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 15		290 = 15			
	Tape cutting	On			Key 2	Key 4
	Counts c1 and c2	On		Key S2/3	Key 1	Key 1/5
	Basic position 2	On		Key S5	Key 4	Key 7
LS	Light barrier		009 = 1			
PLS	Speed of the light barrier compensating stitches depending on the pedal		192 = 1			
in4	Key for high lift for walking foot operational mode stored		243 = 14			
in5	Key for manual tape cutter		244 = 15			
n1	Positioning speed		110			
n2	Maximum speed		111			
c2	Stitch counting until thread tension release Off		000			
c1	Stitch counting until thread tension release On		001			
LS	Light barrier compensating stitches		004			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			
kt6 *)	Delay time of output VR (chain suction)		256			
c7	Start counting until tape cutter M4 On		257			
c8	End counting until tape cutter M4 On		258			
kt4 *)	ON period of tape cutter M4		287			
kdF	Delay time until sewing foot lifting On		288			

*) The value displayed on the control unit must be multiplied by 10. **Example:** The displayed value 10 corresponds to 100ms.

Mode 15 (Pegasus SSC100) sequence when high lift for walking foot is Off / start of seam with light barrier uncovered
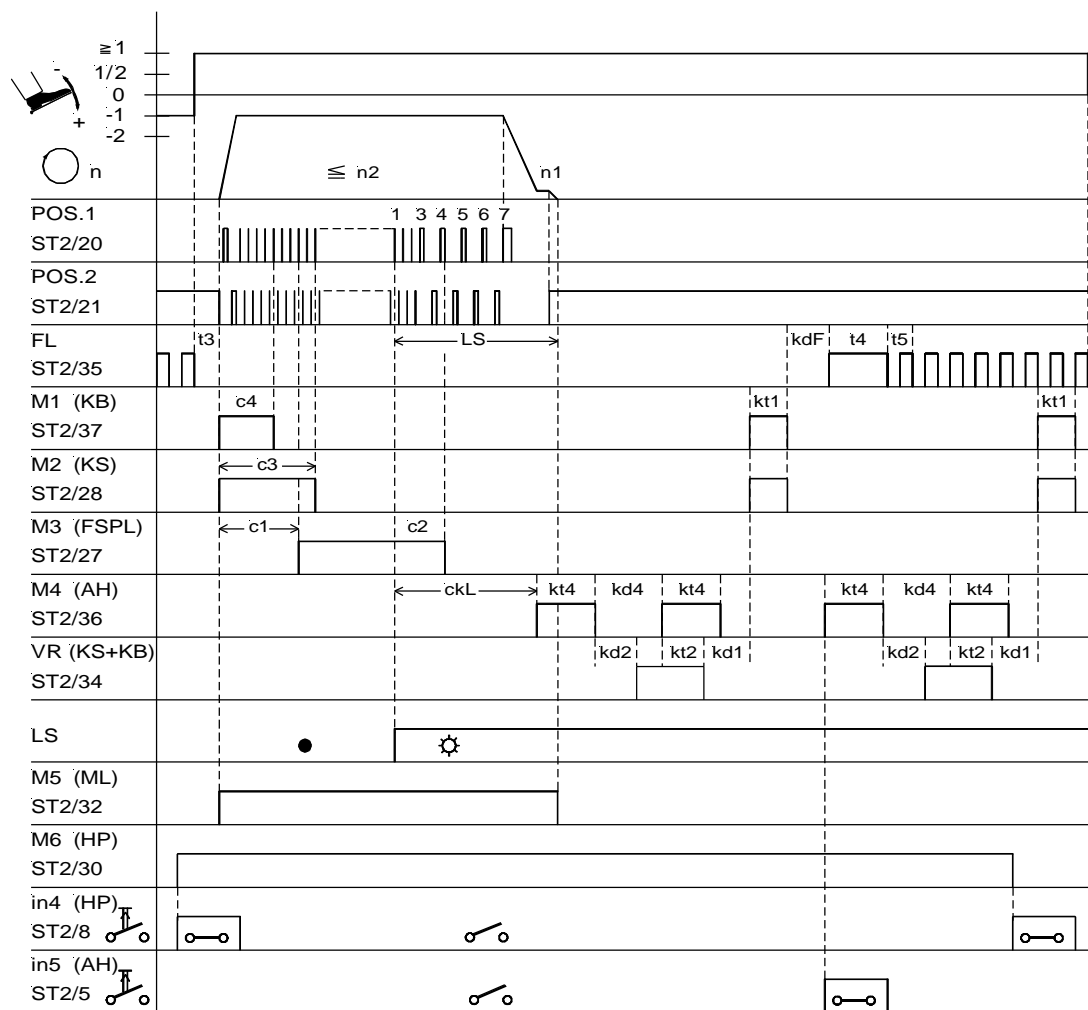

0256/ MODE- 15c

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 15		290 = 15			
	Tape cutting	On			Key 2	Key 4
	Counts c1 and c2	On		Key S2/3	Key 1	Key 1/5
	Basic position 2	On		Key S5	Key 4	Key 7
LS	Light barrier		009 = 1			
PLS	Speed of the light barrier compensating stitches depending on the pedal		192 = 1			
in4	Key for high lift for walking foot operational mode stored (M6 inverted)		243 = 14			
in5	Key for manual tape cutter		244 = 15			
n1	Positioning speed		110			
n2	Maximum speed		111			
c2	Stitch counting until thread tension release Off		000			
c1	Stitch counting until thread tension release On		001			
LS	Light barrier compensating stitches		004			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			
kt6 *)	Delay time of output VR (chain suction)		256			
c7	Start counting until tape cutter M4 On		257			
c8	End counting until tape cutter M4 On		258			
kt4 *)	ON period of tape cutter M4		287			
kdF	Delay time until sewing foot lifting On		288			

*) The value displayed on the control unit must be multiplied by 10. **Example:** The displayed value 10 corresponds to 100ms.

**) Programming is possible at intermediate stop before tape cutting at the start of the seam!

Mode 15 (Pegasus SSC100) sequence when high lift for walking foot is On

0256/ MODE- 15b

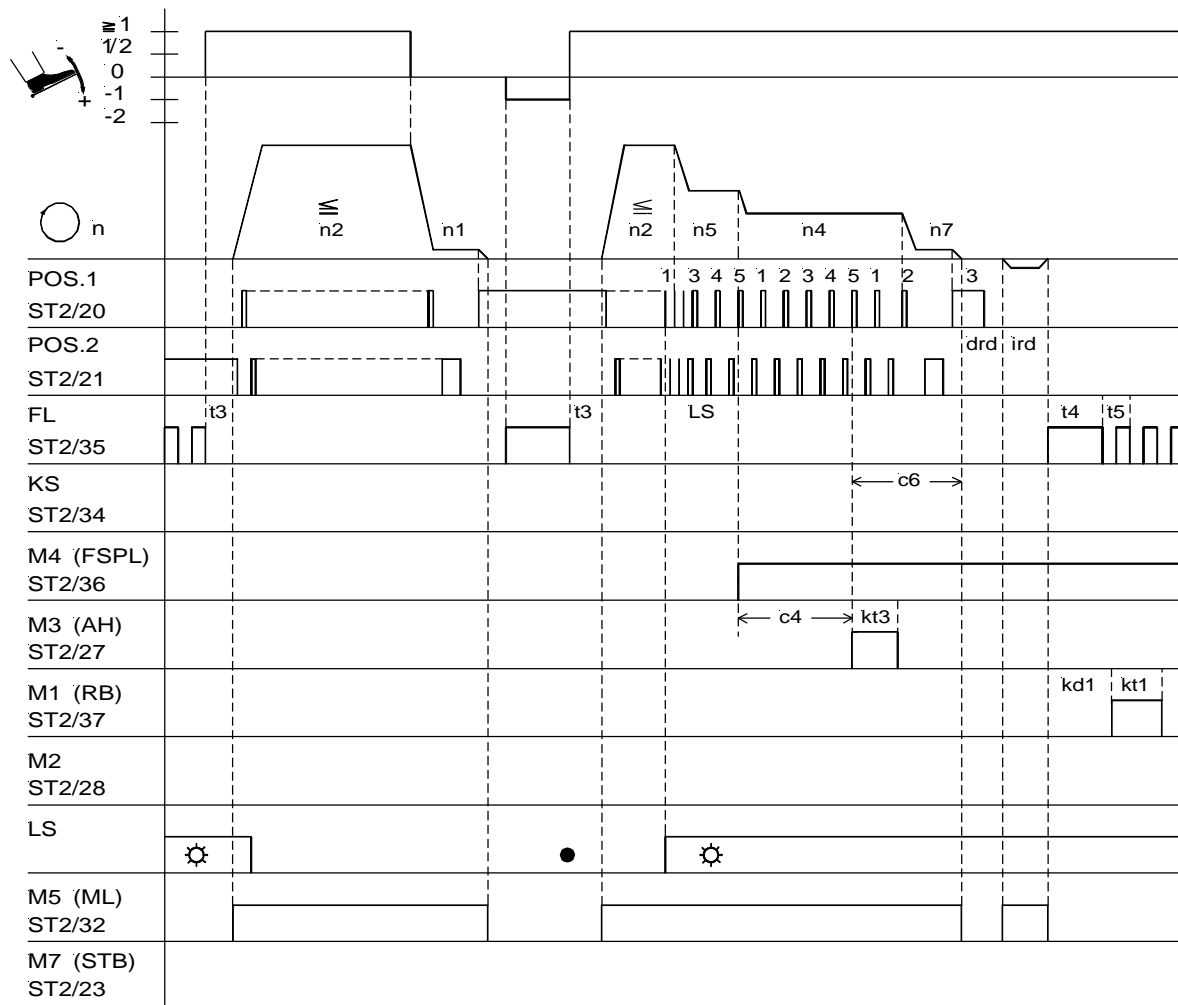| Mark	Function		Parameter	Control	V810	V820
FAm	Mode 15		290 = 15			
	Tape cutting	On			Key 2	Key 4
	Counts c1 and c2	On		Key S2/3	Key 1	Key 1/5
	Basic position 2	On		Key S5	Key 4	Key 7
LS	Light barrier		009 = 1			
PLS	Speed of the light barrier compensating stitches depending on the pedal		192 = 1			
in4	Key for high lift for walking foot operational mode stored		243 = 14			
in5	Key for manual tape cutter		244 = 15			
n1	Positioning speed		110			
n2	Maximum speed		111			
c2	Stitch counting until thread tension release Off		000			
c1	Stitch counting until thread tension release On		001			
c3	Counting for chain suction		002			
c4	Counting for chain blowing		003			
LS	Light barrier compensating stitches		004			
ckL	Counting after light barrier uncovered until tape cutter On		021			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			
kd1 *)	Delay time of output M1 and M2		280			
kt1 *)	ON period of output M1 and M2		281			
kd2 *)	Delay time of output ST2/34		282			
kt2 *)	ON period of output ST2/34		283			
kd4 *)	Delay time of output M4 (tape cutter)		286			
kt4 *)	ON period of tape cutter M4 (tape cutter)		287			
kdF	Delay time until sewing foot lifting On		288			

*) The value displayed on the control unit must be multiplied by 10. **Example:** The displayed value 10 corresponds to 100ms.

Mode 16 (feed-off-the-arm machine) without automatically unlocking the chain with tape cutter (232 = 0)
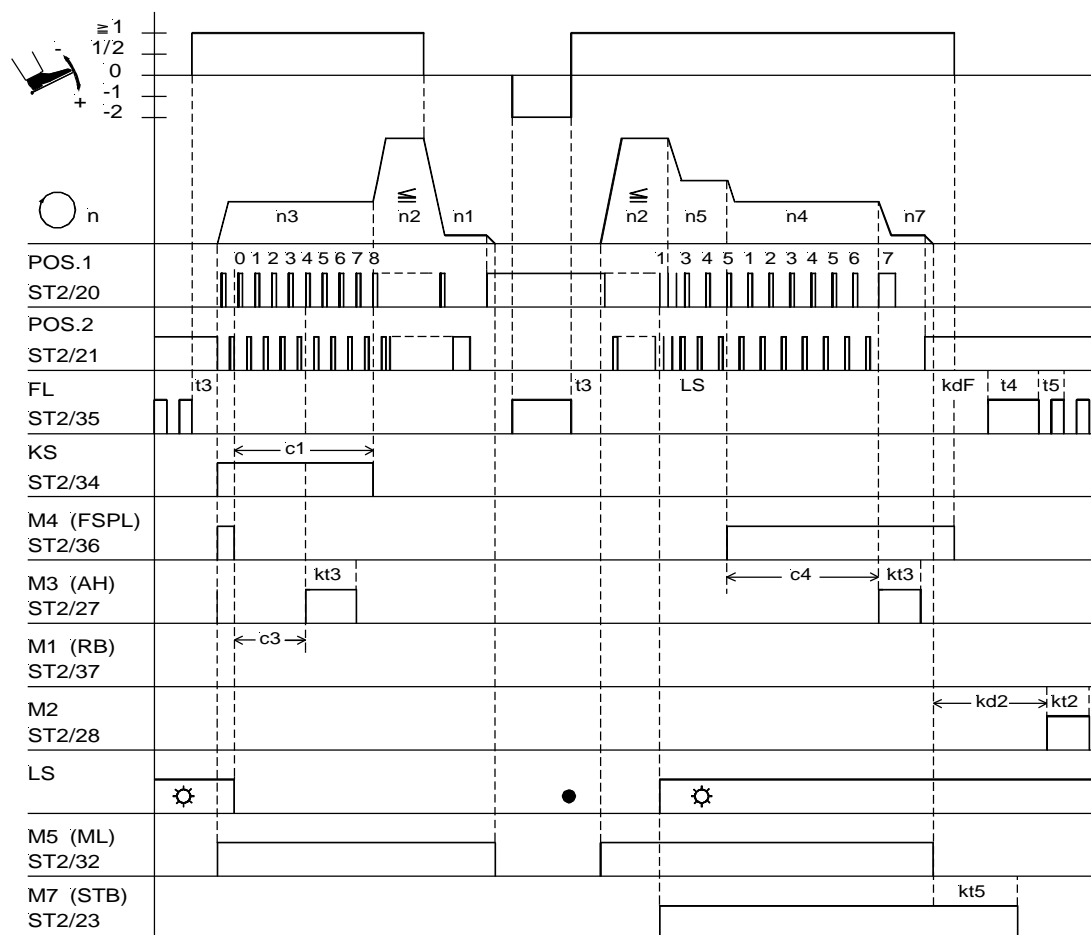
0256/ MODE- 16

Mark	Function	Parameter	Control	V810	V820
FAm	Mode 16	290 = 16			
	Counts c1, c3 and c4 — On		Key S2/3	*)	Key 1/2/4
	Basic position 2 — On		Key S5	*)	Key 0
	Sewing foot lifting at the seam end — On		Key S4	*)	Key 9
LS	Light barrier	009 = 1			
UoS	Sequence "overlock mode with stop"	018 = 0			
-Pd	Function "pedal in pos. –2" blocked	019 = 2			
LSS	Start blockage with light barrier uncovered	132 = 0			
kSA	Stitch counting at the start of the seam at fixed speed n3	143 = 0			
kSE	Stitch counting at the seam end at fixed speed n4	144 = 0			
PLS	Speed of the light barrier compensating stitches depending on the pedal	192 = 0			
bLA	Blow fabric onto stack M7 from light barrier uncovered onwards	194 = 1			
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Speed for start counting	112			
n4	Speed for end counting	113			
n5	Speed after light barrier sensing	114			
n7	Trimming speed	116			
c1	Start counting for chain suction	001			
c3	Start counting for tape cutter	002			
c4	End counting for tape cutter	003			
LS	Light barrier compensating stitches	004			
kd2	Delay time of output M2	282			
kt2	ON period of output M2	283			
kt3	ON period of tape cutter	285			
kdF	Switch-on delay until sewing foot lifting On	288			
kt5	Switch-off delay "blow fabric onto stack at the seam end"	289			

*) The V810 control panel cannot be used for the functions in mode 16!

**Mode 16 (feed-off-the-arm machine) automatically unlocking the chain with tape cutting / key 8 on V820 On**

0256/ MODE- 16a

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 16		290 = 16			
	Counts c4	On		Key S2/3	*)	Key 1/2/4
	Basic position 1	On		Key S5	*)	Key 0
	Unlock the chain with chain blowing in opposite direction	On			*)	Key 8
LS	Light barrier		009 = 1			
UoS	Sequence "overlock mode with stop"		018 = 0			
-Pd	Function "pedal in pos. –2" blocked		019 = 2			
LSS	Start blockage with light barrier uncovered		132 = 0			
kSA	Stitch counting at the start of the seam at fixed speed n3		143 = 0			
kSE	Stitch counting at the seam end at fixed speed n4		144 = 0			
PLS	Speed n5 after light barrier sensing		192 = 0			
bLA	Blow fabric onto stack M7 from light barrier uncovered onwards		194 = 1			
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Speed for start counting		112			
n4	Speed for end counting		113			
n5	Speed after light barrier sensing		114			
n7	Trimming speed		116			
c4	End counting for tape cutter		003			
LS	Light barrier compensating stitches		004			
ird	Number of reversing increments		180			
drd	Switch-on delay of reverse motor rotation		181			
c6	Number of run-out stitches when unlocking the chain		184			
kd1	Delay time of output M1		280			
kt1	ON period of output M1		281			

*)   The V810 control panel cannot be used for the functions in mode 16!

Mode 17 (stitch lock Pegasus)
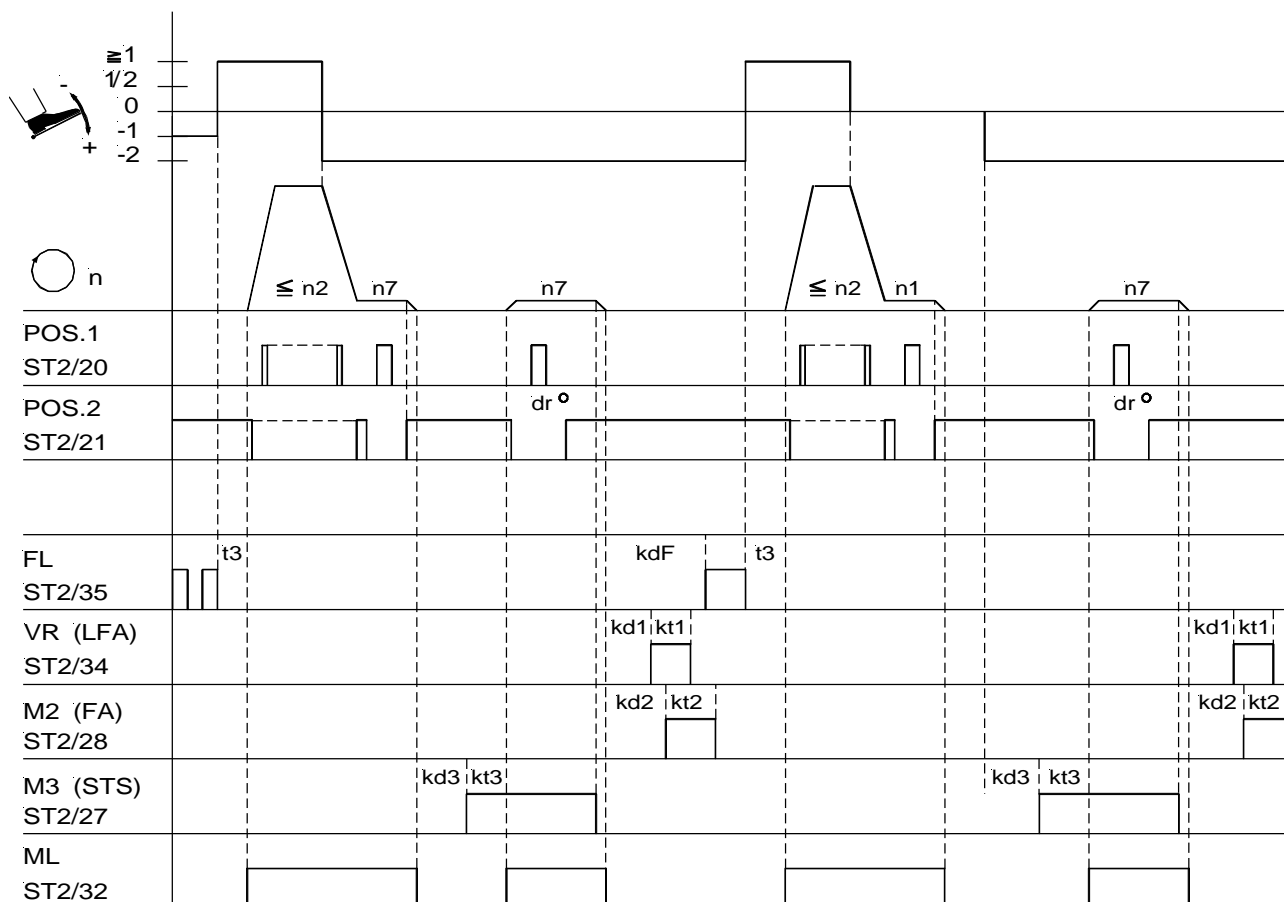
0256/ MODE- 17

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 17		290 = 17			
	Basic position 2	On		Key S5	Key 4	Key 7
	Thread trimmer and thread wiper	On		Key S3		Key 5
n1	Positioning speed		110			
n2	Maximum speed		111			
n7	Trimming speed		116			
dr°	Stop for thread trimming depending on angle		197			
t3	Start delay from lifted sewing foot		202			
kd1	Delay time of the top cover thread cutter LFA		280			
kt1	ON period of the top cover thread cutter LFA		281			
kd2	Delay time of the thread trimmer FA		282			
kt2	ON period of the thread trimmer FA		283			
kd3	Delay time of the stitch lock function STS		284			
kt3	ON period of the stitch lock function STS		285			
kdF	Switch-on delay until sewing foot lifting On		288			

Mode 20 (lockstitch Juki LU1510-7 / DNU1541-7)

0256/ MODE- 20

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 20		290 = 20			
	Double start backtack	On		Key S2	Key 1	Key 1
	Double end backtack	On		Key S3	Key 2	Key 4
Frd	Reverse motor rotation		182 = 1			
in3	Speed limitation bit 0		242 = 31			
in4	Speed limitation bit 1		243 = 32			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
n9	Automatic speed		122			
n10	Automatic speed		117			
n11	Automatic speed		123			
c2	Start backtack stitches forward		000			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
c4	End backtack stitches forward		003			
ird	Number of reversing increments		180			
drd	Switch-on delay of reverse motor rotation		181			
dr°	Stop for thread trimming depending on angle		197			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
t7	Switch-on delay of the sewing foot after thread wiper		206			
iFA	Activation angle of the thread trimmer		250			
FSA	Switch-off delay of thread tension release		251			
FSE	Switch-on delay angle of thread tension release		252			

Mode 21 (stitch lock)
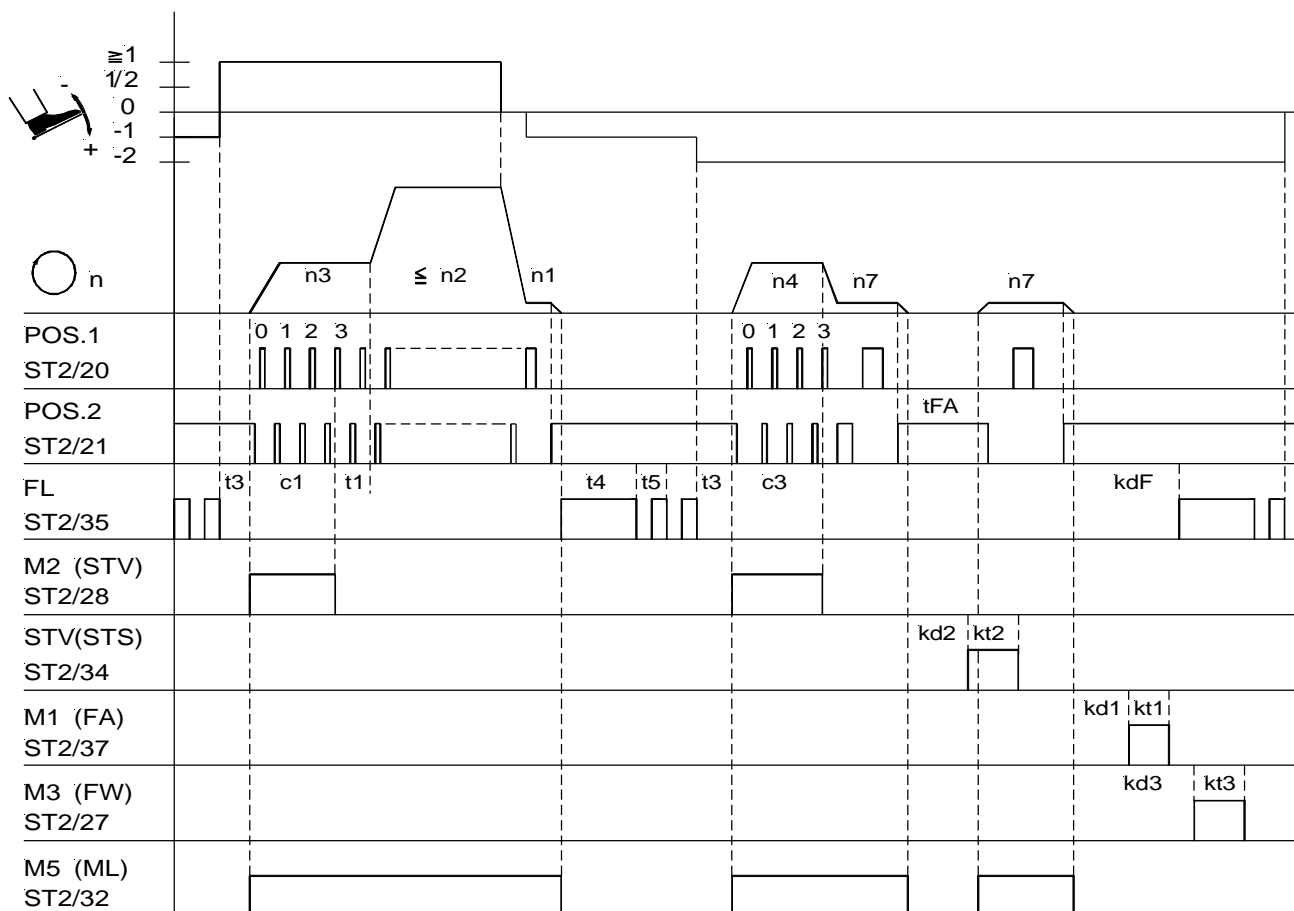
0256/ MODE- 21

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 21		290 = 21			
StL	Stitch lock function		196 = 1			
	Start stitch condensing	On		Key S2	Key 1	Key 1
	End stitch condensing	On		Key S3	Key 2	Key 4
PGm	Setting an external sensor to position 2		270 = 1			
	(A sensor must be connected!)					
n1	Positioning speed		110			
n2	Maximum speed		111			
n3	Speed for start stitch condensing		112			
n4	Speed for end stitch condensing		113			
n7	Trimming speed		116			
c1	Counting start stitch condensing		001			
c3	Counting end stitch condensing		002			
t1	Delay until speed release after stitch condensing		200			
t3	Start delay from lifted sewing foot		202			
t4	Full power of sewing foot lifting		203			
t5	Pulsing of sewing foot lifting		204			
tFA	Stop time for drive		253			
kd1	Delay time thread trimmer		280			
kt1	ON period thread trimmer		281			
kd2	Delay time stitch lock		282			
kt2	ON period stitch lock		283			
kd3	Delay time thread wiper		284			
kt3	ON period thread wiper		285			
kdF	Switch-on delay until sewing foot lifting On		288			

Mode 22 (lockstitch Brother B-891)
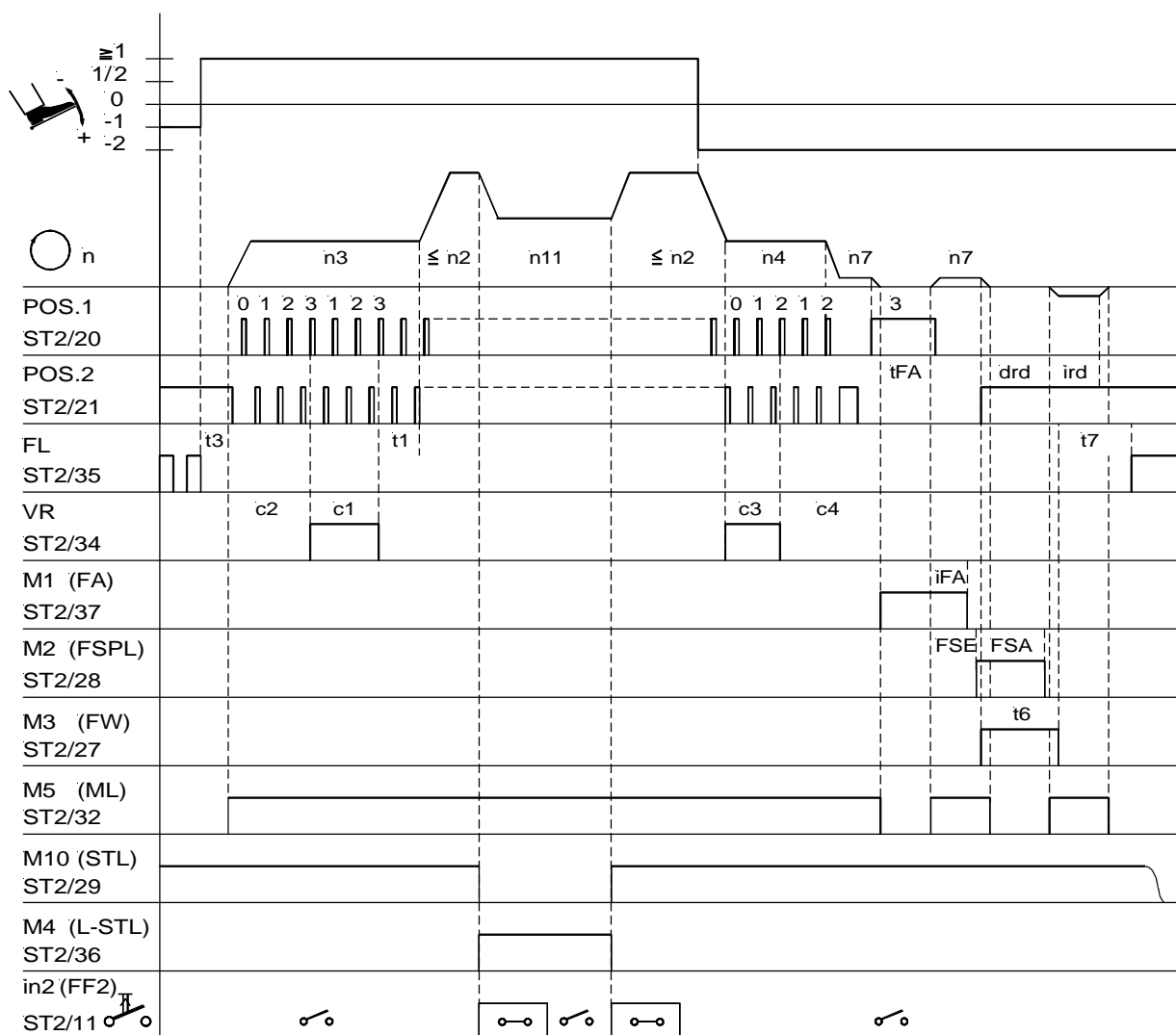
0256/ MODE- 22

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 22		290 = 22			
	Double start backtack	On		Key S2	Key 1	Key 1
	Double end backtack	On		Key S3	Key 2	Key 4
Pot	External potentiometer is active		126 = 1			
FFi	Function "speed limitation"		186 = 1			
in2	Flip-flop for limited speed n11 and signal M10		241 = 22			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
n11	Limikted speed n11		123			
c2	Start backtack stitches forward		000			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
c4	End backtack stitches forward		003			
ird	Number of reversing increments		180			
drd	Switch-on delay of reverse motor rotation		181			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
t6	Thread wiper ON period		205			
t7	Switch-on delay of the sewing foot after thread wiper		206			
iFA	Activation angle of the thread trimmer		250			
FSA	Switch-off delay of thread tension release		251			
FSE	Switch-on delay angle of thread tension release		252			
tFA	Stop time for thread trimmer		253			

Mode 23 (lockstitch)

0256/ MODE- 23
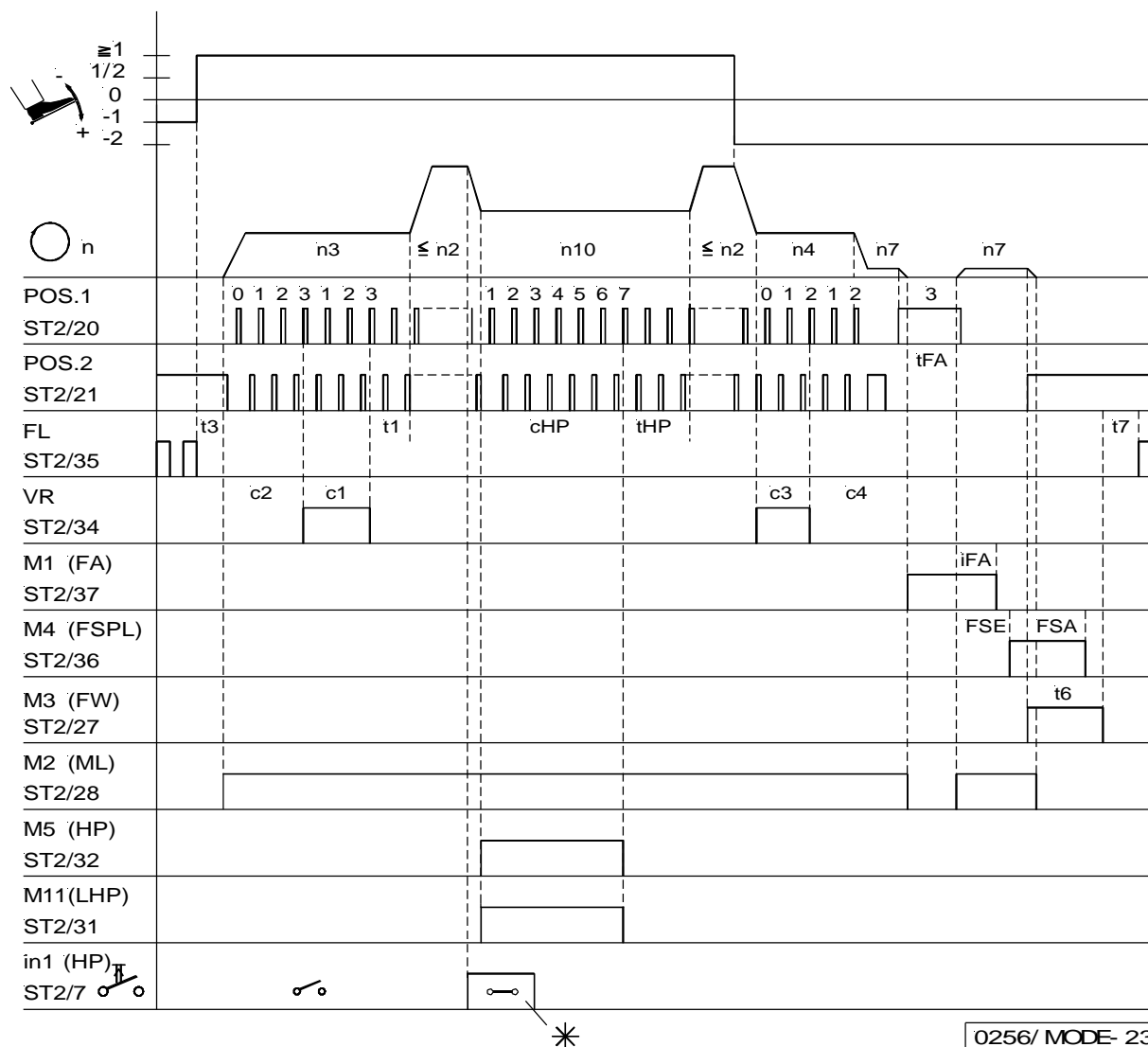
Mark	Function		Parameter	Control	V810	V820
FAm	Mode 23		290 = 23			
	Double start backtack	On		Key S2	Key 1	Key 1
	Double end backtack	On		Key S3	Key 2	Key 4
hP	High lift for walking foot		137 = 1			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
n10	High lift walking speed		117			
c2	Start backtack stitches forward		000			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
c4	End backtack stitches forward		003			
tHP	High lift walking speed run-out time		152			
cHP	Stitch counting high lift for walking foot		185			
t6	Thread wiper ON period		205			
t7	Switch-on delay of the sewing foot after thread wiper		206			
iFA	Activation angle of the thread trimmer		250			
FSA	Switch-off delay of thread tension release		251			
FSE	Switch-on delay angle of thread tension release		252			
tFA	Stop time for thread trimmer		253			

*) If the key is pressed down longer than the cHP count, high lift for walking foot remains On as well. If the key is pressed briefly, high lift for walking foot is On during counting, as shown in the timing diagram.

Mode 24 (Pegasus MHG-100) "bottom hemming" On
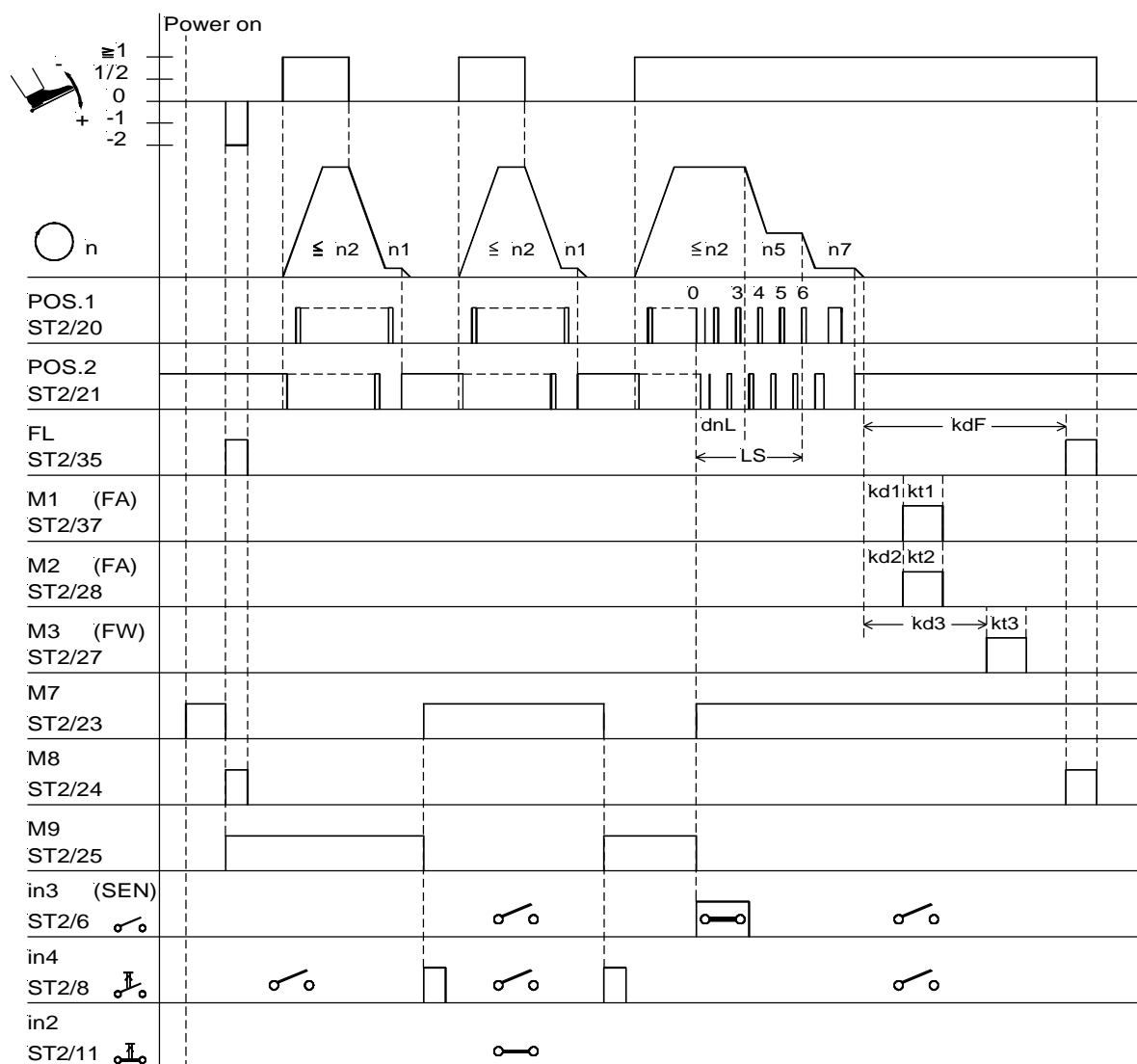
0256/ MODE- 24

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 24		290 = 24			
	Basic position 2	On		Key S5	Key 4	Key 7
LS	Light barrier		009 = 1			
n1	Positioning speed		110			
n2	Maximum speed		111			
n5	Light barrier speed		114			
n7	Trimming speed		116			
LS	Light barrier compensating stitches		004			
dnL	Delay time until light barrier speed release		158			
kd1/kd2	Delay time of the thread trimmer M1 and M2		280/282			
kt1/kt2	ON period of the thread trimmer M1 and M2		281/283			
kd3	Delay time of the thread wiper M3		284			
kt3	ON period of the thread wiper M3		285			
kdF	Switch-on delay until sewing foot On		288			

Outputs:
FL   = Sewing foot lifting
M1/M2 = Thread trimmer
M3   = Thread wiper
M7   = Hemming guide
M8   = Hemming blow 1
M9   = Hemming blow 2
M6   = Display "bottom/sleeve hemming"

Inputs:
in1 = Machine run blockage   Pa. 240= 6
in2 = Switch bottom/sleeve hemming   Pa. 241=14
in3 = Sensor input   Pa. 242=28
in4 = Knee switch "hemming guide"   Pa. 243=22

Mode 24 (Pegasus MHG-100) "sleeve hemming" On

0256/ MODE- 24a

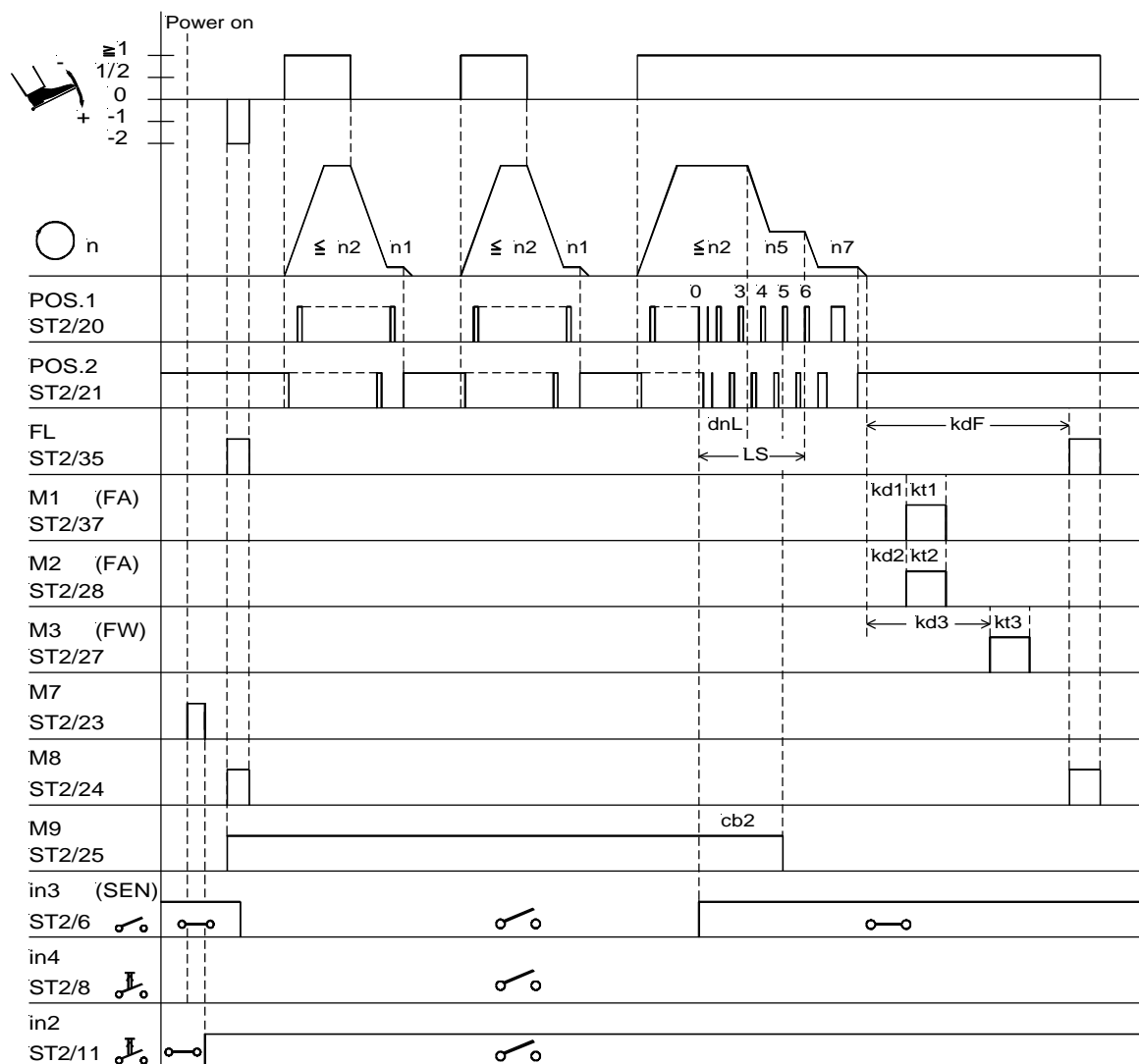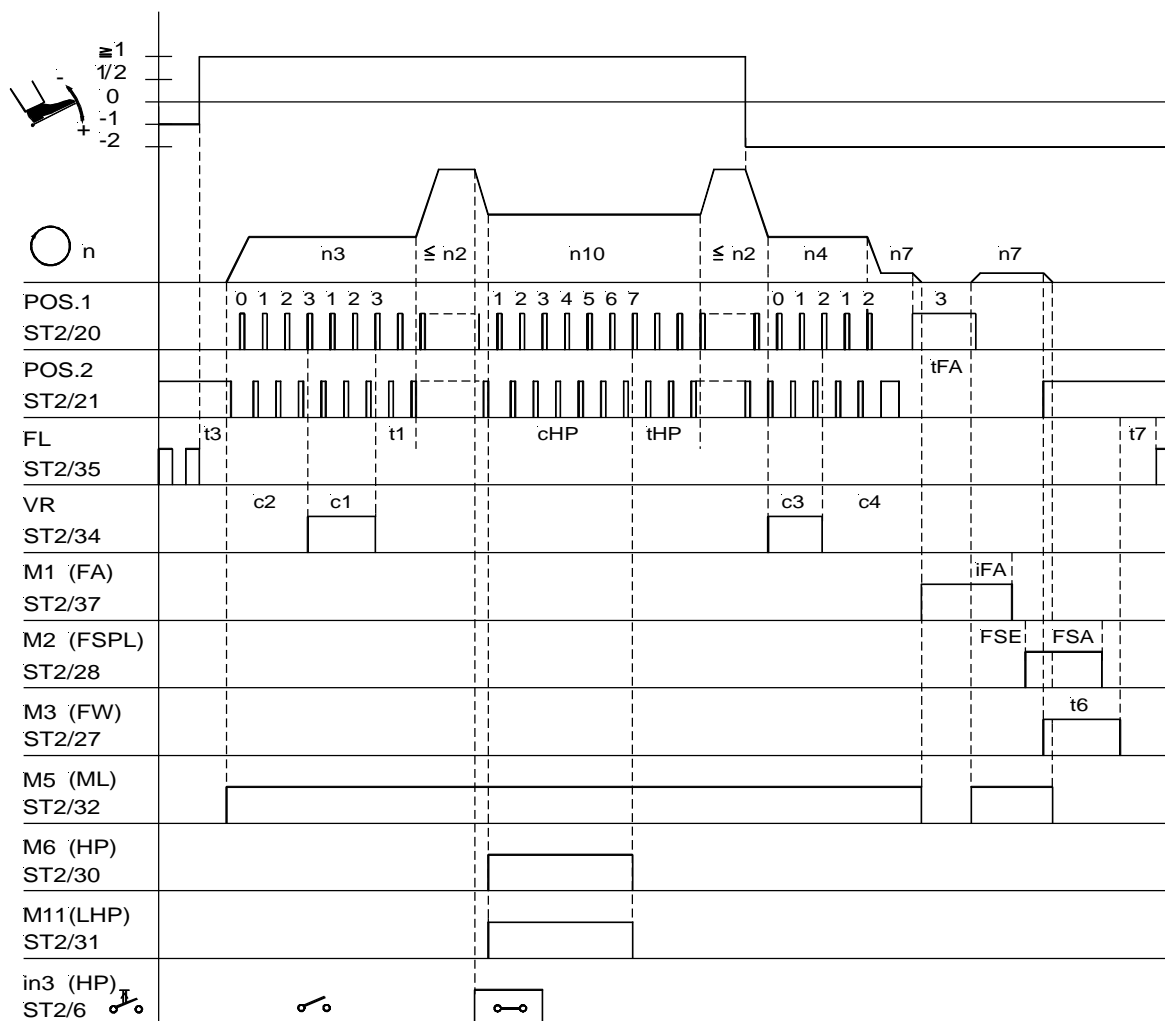| Mark	Function		Parameter	Control	V810	V820
FAm	Mode 24		290 = 24			
	Basic position 2	On		Key S5	Key 4	Key 7
LS	Light barrier		009 = 1			
n1	Positioning speed		110			
n2	Maximum speed		111			
n5	Light barrier speed		114			
n7	Trimming speed		116			
LS	Light barrier compensating stitches		004			
dnL	Delay time until light barrier speed release		158			
cb2	Stitches until signal M9 "hemming blow 2" Off		159			
kd1/kd2	Delay time of the thread trimmer M1 and M2		280/282			
kt1/kt2	ON period of the thread trimmer M1 and M2		281/283			
kd3	Delay time of the thread wiper M3		284			
kt3	ON period of the thread wiper M3		285			
kdF	Switch-on delay until sewing foot On		288			

Outputs:
FL = Sewing foot lifting
M1/M2 = Thread trimmer
M3 = Thread wiper
M7 = Hemming guide
M8 = Hemming blow 1
M9 = Hemming blow 2
M6 = Display "bottom/sleeve hemming"

Inputs:
in1 = Machine run blockage   Pa. 240= 6
in2 = Switch bottom/sleeve hemming Pa. 241=14
in3 = Sensor input   Pa. 242=28
in4 = Knee switch "hemming guide"   Pa. 243=22

Mode 25 (lockstitch Juki LU2210/LU2260)

0256/ MODE- 25

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 25		290 = 25			
	Double start backtack	On		Key S2	Key 1	Key 1
	Double end backtack	On		Key S3	Key 2	Key 4
Pot	External potentiometer is active		126 = 3			
hP	High lift for walking foot		137 = 1			
in3	High lift for walking foot with speed limitation n10		242 = 14			
PGm	Setting an external sensor to position 1 (A sensor must be connected!)		270 = 3			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
n10	High lift walking speed		117			
c2	Start backtack stitches forward		000			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
c4	End backtack stitches forward		003			
tHP	High lift walking speed run-out time		152			
cHP	Stitch counting high lift for walking foot		185			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
t6	Thread wiper ON period		205			
t7	Switch-on delay of the sewing foot after thread wiper		206			
iFA	Activation angle of the thread trimmer		250			
FSA	Switch-off delay of thread tension release		251			
FSE	Switch-on delay angle of thread tension release		252			
tFA	Stop time for thread trimmer		253			

Mode 28 backlatch
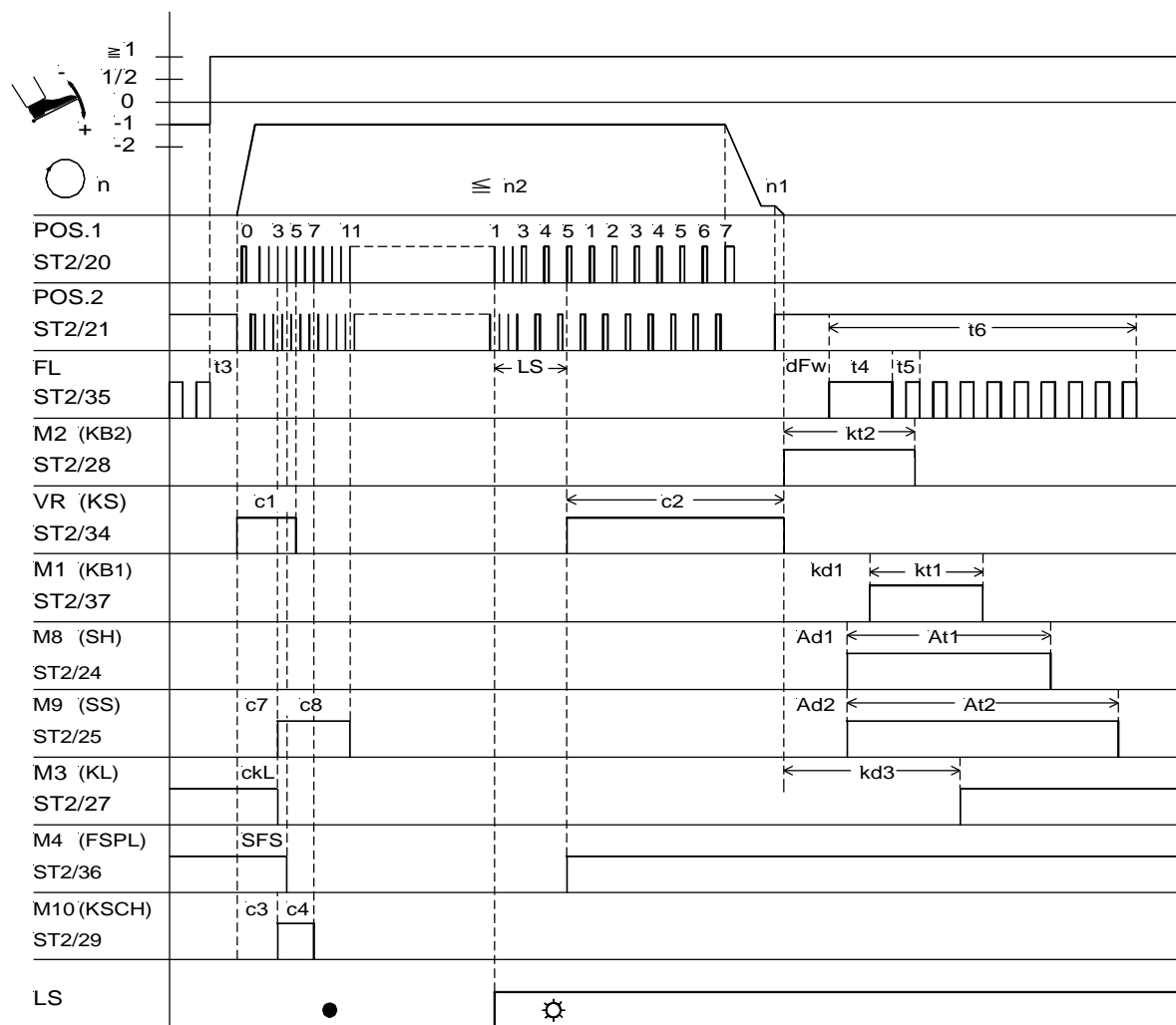
0256/ MODE- 28

Mark	Function	Parameter	Control	V810	V820
FAm	Mode 28	290 = 28			
	Counts c1, c2, c3 and c4 On		Key S2/3	Key 1/2	Key 1/4
LS	Light barrier	009 = 1			
kLm	Thread clamp On	020 = 1			
n1	Positioning speed	110			
n2	Maximum speed	111			
c2	End counting for chain suction	000			
c1	Start counting for chain suction	001			
c3	Counting at the start of the seam until chain pusher On	002			
c4	Counting at the start of the seam until chain pusher On	003			
LS	Light barrier compensating stitches	004			
ckL	Thread clamp count at the start of the seam	021			
SFS	Counting until thread tension release at the start of the seam Off	157			
t3	Start delay from lifted sewing foot	202			
t6	Sewing foot activation during backlatching	205			
dFW	Switch-on delay of sewing foot lifting	209			
c7	Counting at the start of the seam until suction head On	257			
c8	Counting at the start of the seam determines suction head ON period	253			
Ad1	Suction head lifting delay at the seam end	274			
At1	Suction head ON period at the seam end	275			
Ad2	Suction head switch-on delay	276			
At2	Suction head ON period at the seam end	277			
kd1	Delay time for chain blowing 1 at the seam end	280			
kt1/kt2	ON periods for chain blowing 1 / 2 at the seam end	281/283			
kd3	Delay time until thread clamp On at the seam end	285			

Mode 30 (Juki LU1521N-7) short trimmer (168 = 9)

0256/ MODE- 20

Mark	Function		Parameter	Control	V810	V820
FAm	Mode 20		290 = 20			
	Double start backtack	On		Key S2	Key 1	Key 1
	Double end backtack	On		Key S3	Key 2	Key 4
Frd	Reverse motor rotation		182 = 1			
in3	Speed limitation bit 0		242 = 31			
in4	Speed limitation bit 1		243 = 32			
n2	Maximum speed		111			
n3	Start backtack speed		112			
n4	End backtack speed		113			
n7	Trimming speed		116			
n9	Automatic speed		122			
n10	Automatic speed		117			
n11	Automatic speed		123			
c2	Start backtack stitches forward		000			
c1	Start backtack stitches backward		001			
c3	End backtack stitches backward		002			
c4	End backtack stitches forward		003			
ird	Number of reversing increments		180			
drd	Switch-on delay of reverse motor rotation		181			
dr°	Stop for thread trimming depending on angle		197			
t1	Delay until speed release after start backtack		200			
t3	Start delay from lifted sewing foot		202			
t7	Switch-on delay of the sewing foot after thread wiper		206			
iFA	Activation angle of the thread trimmer		250			
FSA	Switch-off delay of thread tension release		251			
FSE	Switch-on delay angle of thread tension release		252			

9 List of Parameters

9.1 Preset Values Depending on Mode

The preset values which are different in the various modes are listed in the table below. When switching the mode by means of parameter 290, these values change automatically.

Mode ➔ Parameter	0	2	3	4	5	6	7	8	9	10	13	14	15	16	17	20
000	-	-	-	-	-	-	-	-	-	-	-	-	6	30	-	-
001	-	-	-	2	-	-	-	-	-	2	-	-	2	17	-	-
002	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-
003	-	-	-	-	-	-	-	-	-	-	-	-	10	18	-	-
004	-	-	-	-	-	-	0	-	-	-	-	-	25	0	-	-
005	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-
007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
008	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
009	-	-	-	-	-	-	1	-	-	-	-	-	1	1	-	-
013	-	-	-	-	-	-	-	0	0	-	-	-	0	-	-	-
014	-	0	-	-	-	-	0	0	0	-	-	-	0	0	0	0
019	-	-	-	-	-	-	2	-	-	-	-	-	2	2	1	-
021	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-
023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
** 110	-	-	-	180	-	-	-	250	250	180	180	-	-	-	-	-
** 111	-	-	-	5000	-	-	-	-	-	4500	3000	-	7500	3800	-	2500
** 112	-	-	-	-	-	-	-	-	-	-	1100	-	-	3800	-	600
** 113	-	-	-	-	-	-	-	-	-	-	1100	-	-	3800	-	600
** 114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
** 115	-	-	-	-	-	-	-	-	-	700	-	-	-	-	-	-
** 116	-	-	-	-	-	-	-	-	-	-	180	-	-	-	-	-
** 117	-	-	-	-	-	-	-	-	-	-	2000	-	9900	-	-	800
** 118	-	-	-	-	-	-	-	-	-	-	3000	-	-	-	-	2500
119	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
** 122	-	-	-	-	-	-	-	-	6000	-	1500	-	-	-	-	1400
** 123	-	-	-	-	-	-	-	-	-	-	2000	-	-	-	-	2000
** 124	-	-	-	-	-	-	-	-	-	-	2200	-	-	-	-	-
** 125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
126	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
130	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	-	-	-	-	-	-	0	-	-	-	-	-	0	0	-	-
133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
134	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
137	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	1
145	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
153	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	4
155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
** 156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
158	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
161	-	-	-	0	0	0	0	0	0	0	-	-	0	0	0	-
168	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
180	-	-	-	-	-	-	-	-	-	14	3	-	-	-	-	70
181	-	-	-	-	-	-	-	-	-	230	-	-	-	-	-	-
182	-	-	-	-	-	-	1	-	-	1	1	-	-	1	-	1
184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
186	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
187	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
190	-	-	-	0	-	-	2	-	-	-	-	-	-	-	-	-
192	-	-	-	-	-	-	1	-	-	-	-	-	1	1	-	-
194	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
196	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	360	50
200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
201	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-
202	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-
203	-	-	-	350	-	-	-	-	-	-	-	-	-	-	-	-
204	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	100
** 205	-	-	-	-	-	-	-	-	-	240	-	-	-	-	-	-
206	-	-	-	-	-	-	-	-	-	150	-	-	-	-	-	-

- = For the positions marked with "-" the preset values listed in the List of Parameters are used !

** = When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

	Mode → Parameter	0	2	3	4	5	6	7	8	9	10	13	14	15	16	17	20
	207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
	208	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
	209	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-
	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	211	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-
	212	-	-	-	100	-	-	-	-	-	100	-	-	-	-	-	-
	213	-	-	-	12	-	-	-	-	-	12	-	-	100	-	-	-
	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	222	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	223	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	234	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-
	235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	240	-	-	13	6	-	-	-	6	6	-	2	-	-	15	-	14
	241	-	-	7	-	-	-	-	-	-	-	16	16	-	-	-	2
	242	-	-	1	3	-	-	-	10	38	-	24	-	-	-	-	31
	243	-	-	22	-	-	-	-	1	34	-	11	-	14	15	-	32
	244	-	-	16	-	-	-	-	-	-	-	22	-	15	-	-	17
	245	-	-	19	-	-	-	-	12	12	-	-	-	-	-	-	16
	246	-	-	33	-	-	-	-	-	-	-	33	-	-	-	-	14
	247	-	-	31	-	-	-	-	-	-	-	14	-	-	-	-	22
	248	-	-	28	-	-	-	-	-	-	-	17	-	-	-	-	57
	249	-	-	17	-	-	-	-	-	-	-	25	-	-	-	-	19
	250	-	-	180	-	-	-	-	-	-	-	210	-	-	-	-	-
**	251	-	-	-	-	-	-	-	-	-	-	110	-	-	-	-	-
**	252	-	-	-	-	-	-	-	-	-	-	210	-	-	-	-	-
**	253	-	-	70	-	-	-	-	-	-	-	0	-	-	-	0	0
	254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	255	-	-	-	25	-	-	-	-	-	25	-	-	-	-	-	-
	256	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	257	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	258	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	259	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	262	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	269	-	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-
	270	-	-	-	-	-	-	-	-	1	-	-	3	-	-	-	-
	271	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-
	272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
**	274	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
**	275	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-
**	280	x	x	x	100	-	-	100	x	x	x	x	-	10	-	100	-
**	281	-	-	-	-	-	-	-	-	-	280	-	-	50	1000	-	-
**	282	x	0	x	0	-	-	200	x	x	x	x	x	30	200	-	-
**	283	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-
**	284	x	x	x	-	-	0	0	x	x	150	0	x	-	0	-	-
**	285	x	x	x	-	-	-	-	x	x	70	120	x	-	-	70	-
**	286	x	x	x	x	-	0	0	x	x	x	x	-	100	0	-	-
**	287	x	x	x	x	-	-	0	x	x	x	x	-	50	0	-	-
**	288	x	x	x	-	-	-	-	x	x	x	x	x	-	-	200	-
	289	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	291	-	-	-	-	5	5	8	7	7	-	-	-	7	7	5	-
	292	-	-	-	-	3	3	5	5	5	-	-	-	5	7	3	-
	293	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	294	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-
	296	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-
	297	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	299	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

x = The positions marked with "x" are not used in the functional sequence!

- = For the positions marked with "-" the preset values listed in the List of Parameters are used !

** = When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Further Presets Depending on Mode (Positions and Functions Switchable by Means of the Control Keys)

Mode ➜	0	2	3	4	5	6	7	8	9	10	13	14	15	16	17	20
171/1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
171/2E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
171/1A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
171/2A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Basic pos.	1	1	1	1	2	2	2	2	2	1	1	1	2	2	2	1
Single start backtack	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
Double start backtack	ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON
Single end backtack	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
Double end backtack	ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON

Mode ➜ Parameter	21	22	23	24	25	26	27	28	30	31	32
000	-	-	-	-	-	4	3	-	-	02	-
001	-	-	-	-	-	4	0	-	-	05	-
002	-	-	3	-	-	5	0	16	-	04	-
003	-	-	3	-	-	4	0	15	-	04	-
004	-	-	-	35	-	18	9	-	-	-	-
005	-	-	0	-	-	2	0	-	-	-	-
007	-	-	10	-	-	0	0	-	-	-	-
008	-	2	2	-	-	-	-	-	-	-	-
009	-	-	-	1	-	1	1	1	-	-	-
013	-	-	-	-	-	1	-	-	-	-	-
014	-	-	0	-	-	1	0	-	0	-	-
019	-	-	-	-	-	-	-	-	-	-	-
020	-	-	-	-	-	-	-	1	-	-	-
021	-	-	-	-	-	-	0	9	-	-	-
023	-	-	-	-	-	-	0	-	-	-	-
025	-	-	-	-	-	-	0	-	-	-	-
100	-	-	-	-	-	-	3	-	-	-	-
** 110	-	-	180	-	-	-	-	-	2500	-	-
** 111	5500	3500	4800	5000	3500	3200	2200	-	600	4000	5000
** 112	-	900	1700	-	-	800	-	-	600	1200	-
** 113	-	900	1700	-	-	800	-	-	-	1200	-
** 114	-	-	1700	2000	-	1000	-	-	-	-	-
** 115	-	-	800	-	-	-	350	-	-	-	-
** 116	-	-	180	-	-	180	170	-	800	-	-
** 117	-	-	2000	9900	2000	-	-	-	2500	-	-
** 118	-	-	3000	-	-	-	1200	-	-	-	-
119	-	-	-	-	-	-	1	-	1400	-	-
** 122	-	-	-	-	-	-	-	-	2000	-	-
** 123	-	3500	-	9900	-	-	2000	-	-	-	-
** 124	-	3500	-	-	-	-	2200	-	-	-	-
** 125	-	2000	-	-	-	-	400	-	-	-	-
126	-	1	-	-	3	2	-	-	-	-	-
130	-	-	-	-	-	1	-	1	-	-	-
131	-	-	-	-	-	1	-	-	-	-	-
132	-	-	-	0	-	-	0	0	-	-	-
133	-	-	-	-	-	1	-	-	1	-	-
134	-	-	1	-	-	-	1	-	1	-	-
135	-	1	-	-	-	1	-	-	1	-	-
137	1	1	1	1	1	-	-	-	-	-	-
145	-	-	-	-	-	-	-	-	-	-	-
152	-	-	100	-	-	-	80	-	4	-	-
153	-	-	06	-	15	20	20	-	-	-	-
155	-	-	-	-	-	1	0	-	-	-	-
** 156	-	-	-	-	-	1000	-	-	-	-	-
158	-	-	-	100	-	-	-	-	-	-	-
161	0	-	-	0	-	-	-	-	70	-	0
168	-	-	-	-	0	-	-	-	9	-	-
180	-	40	14	-	32	6	3	-	-	-	-
181	-	-	0	-	-	100	50	-	1	-	-
182	-	1	-	-	1	1	1	-	-	-	-
184	-	-	-	-	-	-	0	-	-	-	-
186	-	1	-	-	-	-	-	-	-	-	-
187	-	1	-	-	-	-	-	-	-	-	-
190	-	-	-	-	-	-	0	-	-	-	-
191	-	-	-	-	-	-	-	1	-	-	-
192	-	-	-	-	-	-	-	-	-	-	-
194	-	-	-	-	-	-	-	-	50	-	-
196	1	-	-	-	-	-	-	-	-	-	-
197	-	40	-	-	40	-	-	-	-	-	-

	Mode → Parameter	21	22	23	24	25	26	27	28	30	31	32
	200	-	-	50	-	-	-	0	-	-	-	-
	201	200	-	-	-	-	-	20	-	-	-	-
	202	-	-	80	-	-	250	0	-	100	-	-
	203	-	-	200	-	-	-	0	-	-	-	-
	204	-	-	-	-	-	-	1	-	-	-	-
**	205	-	-	100	-	-	250	0	900	-	-	-
	206	-	-	50	-	-	0	0	-	-	-	-
	207	-	-	10	-	5	13	20	-	-	-	-
	208	-	-	-	-	20	6	20	-	-	-	-
	209	-	-	-	-	-	-	-	100	-	-	-
	210	-	-	100	-	-	-	0	-	5	-	-
	211	-	-	0	-	-	-	0	-	20	-	-
	212	-	-	200	-	-	-	0	-	-	-	-
	213	-	-	50	-	-	-	1	-	-	-	-
	220	-	-	-	-	10	8	55	-	-	-	-
	221	-	-	-	-	-	-	50	-	-	-	-
	222	-	-	-	-	-	-	0	-	-	-	-
	223	-	-	-	-	-	-	200	-	-	-	-
	224	-	-	-	-	-	-	0	-	-	-	-
	234	-	-	-	-	-	-	-	-	-	-	-
	235	-	-	-	-	-	-	1	-	-	-	-
	239	-	-	-	-	-	-	31	-	-	-	-
	240	-	12	13	6	1	17	-	-	-	76	7
	241	-	22	07	13	57	0	7	-	-	-	18
	242	-	2	01	28	14	-	28	-	-	-	18
	243	-	14	-	22	16	-	31	-	14	-	16
	244	-	17	16	-	17	-	31	-	2	-	17
	245	-	16	-	-	-	-	31	-	31	-	-
	246	-	-	33	-	-	-	31	-	32	-	-
	247	-	-	11	-	-	-	31	-	17	-	-
	248	14	-	28	-	57	-	31	-	16	-	-
	249	-	-	17	-	19	6	31	-	14	-	-
	250	-	60	280	-	30	30	-	-	180	-	-
**	251	-	100	-	-	-	150	0	-	57	-	-
**	252	-	180	-	-	-	240	-	-	19	-	-
**	253	-	-	0	-	20	20	0	-	0	-	-
	254	-	-	-	-	-	-	1	-	-	-	-
	255	-	-	-	-	-	-	1	-	-	-	-
	256	-	-	-	-	-	-	0	-	0	-	-
	257	-	-	-	-	-	-	0	3	-	-	-
	258	-	-	-	-	-	-	0	30	-	-	-
	259	-	-	-	-	-	-	-	-	0	-	-
	260	100	-	-	-	-	-	0	-	-	-	-
	261	-	-	-	-	-	-	30	-	-	-	-
	262	20	-	-	-	-	-	0	-	-	-	-
	265	-	-	-	-	-	-	0	-	-	-	-
	269	-	-	-	-	30	-	50	-	-	-	-
	270	1	-	-	-	3	0	1	-	-	-	6
	271	4	-	-	-	240	-	255	-	-	-	-
	272	-	-	-	-	88	-	87	-	-	83	117
**	274	-	-	-	-	-	-	0	69	-	-	-
**	275	-	-	-	-	-	-	0	650	-	-	-
**	276	-	-	-	-	-	-	-	100	-	-	-
**	277	-	-	-	-	-	-	-	800	-	-	-
**	278	-	-	-	-	-	-	-	0	-	-	-
**	279	-	-	-	-	-	-	-	0	-	-	-
**	280	x	-	-	100	-	0	-	130	-	x	-
**	281	250	-	-	-	-	-	250	400	-	-	-
**	282	40	-	-	-	-	-	0	0	-	x	-
**	283	80	-	-	-	-	-	0	400	-	-	-
**	284	300	-	-	230	-	-	0	500	-	x	-
**	285	680	-	-	-	-	-	0	-	-	x	-
**	286	-	-	-	-	-	-	0	-	-	x	-
**	287	-	-	-	0	-	-	0	-	-	x	-
**	288	-	-	-	-	-	-	0	100	-	x	-
	289	-	-	-	-	-	-	0	-	-	-	-
	291	5	-	-	5	-	-	-	-	-	9	5
	292	3	-	-	3	-	-	-	5	-	12	3
	293	-	-	-	-	-	-	0	71	-	-	-
	294	-	-	-	-	-	-	0	69	-	-	-
	296	-	-	-	-	-	-	-	-	-	-	-
	297	-	-	-	-	-	1	-	-	-	-	-
	299	-	-	-	-	-	-	200	-	-	-	-
	303	-	-	-	-	-	-	0	-	-	-	-
	313	-	-	-	-	-	-	0	-	-	-	-

x   =   The positions marked with "x" are not used in the functional sequence!
-   =   For the positions marked with "-" the preset values listed in the List of Parameters are used !
** =   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Further Presets Depending on Mode (Positions and Functions Switchable by Means of the Control Keys)

Mode →	21	22	23	24	25	26	27	28	30	31	32
171/1E	-	-	-	-	-	102	-	-	0	190	20
171/2E	-	-	-	-	-	315	-	-	200	15	204
171/1A	-	-	-	-	-	162	-	-	60	250	80
171/2A	-	-	-	-	-	15	-	-	260	78	264
Basic pos.	1	1	1	2	1	1	1	2	1	1	1
Single start backtack	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
Double start backtack	ON	ON	ON	OFF	ON	ON	ON	OFF	ON	ON	ON
Single end backtack	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Double end backtack	ON	ON	ON	OFF	ON	ON	ON	OFF	ON	ON	ON

9.2   Operator Level

The preset values of the following list of parameters refer to the setting of parameter 290 = 0.

Parameter		Designation	Unit	max	min	Preset		Ind.
000	c2	- Number of stitches of start backtack forward - Number of stitches of start stitch condensing without stitch regulator - Number of stitches of end counting "chain suction"	stitches	254	0	2	*)	D/D
001	c1	- Number of stitches of start backtack backward - Number of stitches of start stitch condensing with stitch regulator - Number of stitches of start counting "chain suction"	stitches	254	0	4	*)	D/D
002	c3	- Number of stitches of end backtack backward - Number of stitches of end stitch condensing with stitch regulator - Number of stitches of tape cutter at the start of the seam	stitches	254	0	2	*)	D/D
003	c4	- Number of stitches of end backtack forward - Number of stitches of end stitch condensing without stitch regulator - Number of stitches of tape cutter at the seam end	stitches	254	0	2	*)	D/D
004	LS	Light barrier compensating stitches	stitches	254	0	7	*)	D/D
005	LSF	Number of stitches of the light barrier filter for knitted fabrics	stitches	254	0	1		D/D
006	LSn	Number of light barrier seams		15	1	1	*)	D/D
007	Stc	Number of stitches for the seam with stitch counting	stitches	254	0	20		D/D
008	-F-	A parameter from the technician level is assigned to key 9 on the V820 control panel 1 = Softstart On/Off 2 = Ornamental backtack On/Off 3 = Sewing start blocked with light barrier uncovered On/Off 4 = Unlocking the chain On/Off 5 = Signals A1 and/or A2 On/Off with slide-in strips 1...4 (lefthand arrow = A1, righthand arrow = A2) 6 = Signal A1 On/Off 7 = Signal A2 On/Off 8 = Backtack repetition On/Off		7	1	1	*)	D/D
009	LS	Light barrier On/Off		1	0	0	*)	D/D
013	FA	Thread trimmer On/Off		1	0	1	*)	D/D
014	FW	Thread wiper On/Off		1	0	1	*)	D/D
015	StS	Stitch counting On/Off		1	0	0		D/D
017	SAb	Stop when tape cutting at the seam end On/Off (function effective only in the overlock mode)		1	0	0		D/D
018	UoS	0 = Sequence "overlock mode with stop" 1 = Sequence "overlock mode without automatic stop. When the command "run" is given, the drive runs at the preselected speed. With **pedal in pos. 0** or **light barrier covered,** the program switches to the next start of a seam without issuing signals M1/M2. 2 = As with setting "1". But with **pedal in pos. 0** signals M1/M2 will be issued, and the program switches to the next start of a seam. 3 = As with setting "1". But with **pedal in pos. -2** signals M1/M2 will be issued, and the program switches to the next start of a seam. Intermediate stop and sewing foot lift with **pedal in pos. –1** are possible. 4 = If the light barrier is covered during the end count for chain suction, the program switches immediately to the next start of a seam. If the end count has been completed and the light barrier remains uncovered, the drive stops.		4	0	0		D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!

Operator Level

Parameter		Designation	Unit	max	min	Preset	Ind.
019	-Pd	0 = Pedal in pos. –1 disabled in the seam. With pedal in pos. –2 in the seam, only sewing foot lifting is possible. (Function only if parameter 009 = 1) 1 = Pedal in pos. –1, sewing foot lifting disabled in the seam. 2 = Pedal in pos. –2, thread trimming disabled. (Function only if parameter 009 = 1) 3 = Pedal in pos. –1 and –2 enabled in the seam. 4 = Pedal in pos. –1 and –2 blocked in the seam. (Function only if parameter 009 = 1)		4	0	3 *)	D/D
020	kLM	Clamp at the seam end On/Off		1	0	0	D/D
021	ckL	Run-out stitches clamp at the start of the seam	stitches	254	0	2 *)	D/D
022	SPo	0 = Chain suction until the end of count c2 1 = Chain suction at the seam end until pedal in pos. 0 (neutral) 2 = Chain suction until the drive is at standstill and the switch-off delay (parameter 237) has elapsed		2	0	0	D/D
023	AFL	Automatic sewing foot lifting with pedal forward at the seam end, if light barrier or stitch counting is On 0 = Automatic sewing foot Off 1 = Automatic sewing foot On		1	0	1	D/D
024	FSP	Coupled thread tension release and sewing foot lift. The function can be activated only with a thread trimmer that depends on the angle. (Modes 3, 13, 20, 22, 23, 25) 0 = No coupling 1 = Coupled thread tension release and sewing foot at the seam end with thread trimmer off. 2 = Coupled thread tension release and sewing foot in the seam and at the seam end with thread trimmer off. 3 = Coupled thread tension release and sewing foot always effective.		3	0	0	D/D
025	tFS	Start counting (pa. 157) for thread tension release at the start of the seam 0 = Start counting at the start of the seam 1 = Start counting when the light barrier is covered		1	0	1	D/D
030	rFw	0 = Bobbin thread monitor Off 1 = Bobbin thread monitor with stop 2 = Bobbin thread monitor without stop 3 = Bobbin thread monitor with stop and start blockage after thread trimming 4 = As 1, but display of remaining stitches 5 = As 2, but display of remaining stitches 6 = As 3, but display of remaining stitches		6	0	0	D/D
031	cFw	Number of stitches for bobbin thread monitor	stitches	25500 ***)	0	0	D/D
035	UFw	0 = External bobbin thread monitor Off 1 = Bobbin thread monitor with stop after stitch counting (prameter 036) 2 = Bobbin thread monitor without stop		2	0	0	D/D
036	cUF	Number of stitches for Juki bobbin thread monitor	stitches	5000 **)	0	0	D/D
087	chr	0 = Manual backtack at speed n13 (parameter 109) 1..255 = Manual ornamental backtack at speed n9 (parameter 122)	stitches	255	0	0	D/D
090	war	Double start backtack repetition		255	0	0	D/D
091	wer	Double end backtack repetition		255	0	0	D/D
092	Fwr	Backtack repetition On/Off		1	0	0	D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!
**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.
***)   When programming the 5-digit (max) parameter values on the control or control panel, the 3-digit value displayed must be multiplied by 100.

9.3 Technician Level

Code no.   190 with control operation / Code no.   1907 with control panel operation

Parameter		Designation	Unit	max		min	Preset		Ind.
100	SSc	Number of softstart stitches	stitches	254		0	2	*)	D/D
109	n13	Speed of manual backtack	RPM	9900	**)	200	1500	*)	D/D
110	n1	Positioning speed	RPM	390	**)	70	200	*)	D/D
111	n2-	Upper limit setting range of the maximum speed	RPM	9900	**)	n2_	4000	*)	D/D
112	n3	Start backtacking speed	RPM	9900	**)	200	1200	*)	D/D
113	n4	End backtacking speed	RPM	9900	**)	200	1200	*)	D/D
114	n5	Speed after light barrier sensing	RPM	9900	**)	200	1200		D/D
115	n6	Softstart speed	RPM	1500	**)	70	500	*)	D/D
116	n7	Trimming speed	RPM	500	**)	70	200	*)	D/D
117	n10	High lift walking speed	RPM	9900	**)	400	1000	*)	D/D
118	n12	Automatic speed for stitch counting	RPM	9900	**)	400	3500	*)	D/D
119	nSt	Speed stage graduation 1 = linear 2 = slightly progressive 3 = highly progressive		3		1	2	*)	D/D
121	n2_	Lower limit setting range of the maximum speed	RPM	n2-	**)	400	400		D/D
122	n9	Limited speed n9	RPM	9900	**)	400	2000	*)	D/D
123	n11	Limited speed n11	RPM	9900	**)	400	2500	*)	D/D
124	toP	Speed limitation by means of ext. potentiometer (maximum value)	RPM	9900	**)	Pa.125	4000		D/D
125	bot	Speed limitation by means of ext. potentiometer (minimum value)	RPM	Pa.124	**)	0	200		D/D
126	Pot	Function "speed limitation by means of external potentiometer" 0 = Function "external potentiometer" Off 1 = External potentiometer always active 2 = External potentiometer active only if one of inputs in1...i10 has been selected and enabled 3 = Speed depending on high lift by means of potentiometer e. g. on JUKI (LU2210/ 2260) 4 = Speed depending on high lift by means of potentiometer e. g. on Dürkopp Adler (767)		4		0	0		D/D
127	AkS	Audible signal of machine run blockage and bobbin thread monitor On/Off		1		0	0		D/D
128	Asd	Start delay, when command "start" is given by covering the light barrier (see parameter 129)	ms	2000	**)	0	0		D/D

129	ALS	Machine start by covering the light barrier (only in conjunction with parameter 132 = 1)
		0 = Function Off
		1 = Light barrier covered ➔ pedal forward (>1)
		        ➔ machine run pedal controlled
		2 = Pedal forward (>1) ➔ light barrier covered
		        ➔ machine run pedal controlled
		3 = Light barrier covered ➔ machine run at
		        automatic speed n12 (without pedal)
		Caution! If 129 = 3, the machine starts immediately after covering the light barrier without influence by the pedal! It can be stopped only by uncovering the light barrier or by machine run blockage! If machine run blockage is disabled, the machine starts immediately even if the light barrier is still covered!
				3		0	0		D/D

130	LSF	Light barrier filter for knitted fabrics		1		0	0	*)	D/D
131	LSd	0 = Light barrier sensing "covered" 1 = Light barrier sensing "uncovered"		1		0	1	*)	D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!

**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Technician Level

Code no.　190 with control operation / Code no.　1907 with control panel operation

Parameter		Designation	Unit	max	min	Preset		Ind.
132	LSS	0 = Machine start possible with light barrier uncovered or covered. 1 = Machine start blocked with light barrier uncovered if parameter 131 = 1. Machine start blocked with light barrier covered if parameter 131 = 0.		1	0	0	*)	D/D
133	LSE	Thread trimming operation, when completing the seam after light barrier sensing On/Off		1	0	1	*)	D/D
134	SSt	Softstart On/Off		1	0	0	*)	D/D
135	SrS	Ornamental backtack On/Off		1	0	0		D/D
136	FAr	0 = Trimming stitch backward Off 1 = Trimming stitch backward On with single end backtack 2 = Trimming stitch or positioning stitch at the seam end always backward		2	0	0		D/D
137	hP	High lift for walking foot On/Off		1	0	0		D/D
139	nIS	Display of machine speed On/Off		1	0	0	*)	D/D
141	SGn	Speed status for the seam with stitch counting 0 = Speed controllable by the pedal up to the set maximum speed (parameter 111) 1 = Fixed speed (parameter 118) without influence by the pedal (machine stop by pressing the pedal to the basic position) 2 = Limited speed controllable by the pedal up to the set limit (parameter 118) 3 = At fixed speed (parameter 118) can be interrupted by full heelback 4 = At fixed speed (parameter 110) can be interrupted by full heelback.		4	0	0		D/D
142	SFn	Speed status for the free seam and for the seam with light barrier 0 = Speed controllable by the pedal up to the set maximum speed (parameter 111) 1 = Fixed speed (parameter 118) without influence by the pedal (machine stop by pressing the pedal to the basic position) 2 = Limited speed controllable by the pedal up to the set limit (parameter 118) 3 = At fixed speed (parameter 118) can be interrupted by full heelback (only for seams with light barrier).		3	0	0		D/D
143	kSA	Stitch counting at the start of the seam (e. g. chain suction 0 = Speed controllable by the pedal up to the set maximum speed (parameter 111) 1 = Fixed speed (parameter 112) without influence by the pedal (machine stop by pressing the pedal to the basic position) 2 = Limited speed controllable by the pedal up to the set limit (parameter 112) 3 = At fixed speed (parameter 112), can be suspended or interrupted depending on the setting of parameter 019.		3	0	0		D/D
144	kSE	Stitch counting at the seam end (e. g. chain suction) 0 = Speed controllable by the pedal up to the set maximum speed (parameter 111) 1 = Fixed speed (parameter 113) without influence by the pedal (machine stop by pressing the pedal to the basic position) 2 = Limited speed controllable by the pedal up to the set limit (parameter 113) 3 = At fixed speed (parameter 113), can be suspended or interrupted depending on the setting of parameter 019.		3	0	0		D/D

*)　　　Depending on the selected mode. See table at the beginning of the List of Parameters!

Technician Level

Code no. 190 with control operation / Code no. 1907 with control panel operation

Parameter		Designation	Unit	max		min	Preset		Ind.

145	Shv	Speed status for the manual backtack
		0 = Speed controllable by the pedal up to the set
		    maximum speed (parameter 111)
		1 = Fixed speed (parameter 109) without influence by
		    the pedal (machine stop by pressing the pedal
		    to the basic position)
		2 = Limited speed controllable by the pedal up to the
		    set limit (parameter 109)
				2		0	0	*)	D/D

150	t8	Stitch correction of the double start backtack (prolongation of the stitch regulator ON period / not effective with ornamental backtack)	ms	500		0	0		D/D
151	t9	Stitch correction of the double end backtack (prolongation of the stitch regulator ON period / not effective with ornamental backtack)	ms	500		0	0		D/D
152	thP	Run-out time of the high lift walking speed	ms	500		80	150	*)	D/D
153	brt	Braking power at machine standstill		50		0	15	*)	D/D
155	LSG	Mode signal "run" 0 = Signal Off. 1 = Signal "run" On. 2 = Signal "run" enabled when the speed is >3000 RPM. 3 = Signal with pedal <> 0. 4 = Signal enabled only after motor synchronization (one rotation at positioning speed after power On)		4		0	1		D/D
156	t05	Switch-off delay for the signal "run" or signal with pedal in pos. 0 (neutral)	ms	2550	**)	0	0		D/D
157	SFS	Stitches until thread tension release Off after light barrier covered at the start of the seam (effective only in overlock mode)	stitches	254		0	0		D/D
158	dnL	Delay time until light barrier speed release	ms	500		0	0	*)	D/D
159	cb2	Stitches after light barrier uncovered until signal M9 "hemming blow 2" Off	stitches	254		0	10		D/D
161	drE	Direction of motor rotation 0 = Clockwise rotation 1 = Counterclockwise rotation		1		0	1	*)	D/D
162	n2A	Start backtack speed whenever the backtack can be interrupted by pedal in pos. 0 (neutral) (parameter 164)	RPM	9900	**)	200	600		D/D
163	n2E	End backtack speed whenever the backtack can be interrupted by pedal in pos. 0 (neutral) (parameter 164)	RPM	9900	**)	200	600		D/D
164	StP	Start and end backtack can be interrupted by pedal in pos. 0 (neutral) On/Off		1		0	0		D/D
168	kFA	Output selection for short trimmer 0 = Function Off 1 = Output M1 2 = Output M2 3 = Output M3 (Dürkopp/Adler model 767) 4 = Output M4 5 = Output M5 6 = Output M6 7 = Output M7 8 = Output M8 9 = Output M9 (Juki LU1521N-7) 10 = Output M10 11 = Output M11 12 = Output VR (Juki LU2210)		12		0	0		D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!
**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit
           value displayed must be multiplied by 10.

Technician Level

Code no.   190 with control operation / Code no.   1907 with control panel operation

Parameter		Designation	Unit	max	min	Preset	Ind.
170	Sr1	**Setting the reference position:** - Press key **E**. - Press key **>>**. - Turn handwheel until symbol on display goes off. Then set the handwheel to the reference position. - Press key **P** twice.					
171	Sr2	**Setting the needle positions:** 1E = Start position 1 2E = Start position 2 1A = End position 1 2A = End position 2	degrees	359	0	56 281 98 323	D/D D/D D/D D/D
172	Sr3	**Display on the control:** Pos. 1 to 1A (LED 7 lights up) Pos. 2 to 2A (LED 8 lights up)					
172	Sr3	**Display on the V810 control panel:** Pos. 1 to 1A (lefthand arrow above key 4 On) Pos. 2 to 2A (righthand arrow above key 4 On)					
172	Sr3	**Display on the V820 control panel:** Pos. 1 to 1A (lefthand arrow above key 7 On) Pos. 2 to 2A (righthand arrow above key 7 On)					
173	Sr4	Checking of the signal outputs and inputs using the incorporated control panel or the V810/V820 control panels 01 = Backtacking on socket ST2/34 02 = Sewing foot lift on socket ST2/35 03 = Output M1 on socket ST2/37 04 = Output M3 on socket ST2/27 05 = Output M2 on socket ST2/28 06 = Output M4 on socket ST2/36 07 = Output M5 on socket ST2/32 08 = Output M11 on socket ST2/31 09 = Output M6 on socket ST2/30 10 = Output M9 on socket ST2/25 11 = Output M8 on socket ST2/24 12 = Output M7 on socket ST2/23 13 = Output M10 on socket ST2/29 OFF/ON = By actuating the switches connected to the control, the function of these switches is checked and displayed on the control. **OFF** is displayed with open switch and the activated input **in1...i10** with closed switch.					
176	Sr6	Service routine for total operating hours display. The process is as with display example of parameter 177.					D/D
177	Sr7	Service routine for display of hours since the last service. **Display example on the V810 control panel:** Press key **E** ➔ Display **Sr7 [°]** Press key **>>** ➔ Display **hoUr** Press key **E** ➔ Display **000000** Press key **E** ➔ Display **Min** Press key **E** ➔ Display **00** Press key **E** ➔ Display **SEc** Press key **E** ➔ Display **00** Press key **E** ➔ Display **MSEc** Press key **E** ➔ Display **000** Press key **E** ➔ Display **rES F2** Press key **P** twice ➔ Display e. g. **Ab320A** **Displaybeispiel am Bedienteil V820:** Press key **E** ➔ Display **F-177 Sr7 [°]** Press key **>>** ➔ Display **hoUr 000000** Press key **E** ➔ Display **Min 00** Press key **E** ➔ Display **Sec 00** Press key **E** ➔ Display **MSEc 000** Press key **E** ➔ Display **rES F2** Press key **P** twice ➔ Display e. g. **Ab320A** Display example on the control see instruction manual.					D/D

Technician Level

Code no.   190 with control operation / Code no.   1907 with control panel operation

Parameter		Designation	Unit	max	min	Preset		Ind.
178	ci	No function				00000		D/D
179	Sr5	Control program number with index and more identification numbers. Upon pressing the appropriate key the data will be displayed in succession. **V810 control panel display example:** Press key **E** → Display e. g. **Sr** [°] Press key **>>** → Display e. g. **5211A** Press key **E** → Display e. g. **010823** Press key **E** → Display e. g. **15** Press key **E** → Display e. g. **1F68** Press key **P** twice → Display **Ab320A** **V820 control panel display example:** Press key **E** → Display F-179 **Sr5** [°] Press key **>>** → Display e. g. **PrG** 5211A Press key **E** → Display e. g. **dAt 01082315** Press key **E** → Display e. g. **chk** 1F68 Press key **E** → Display e. g. **132650210015** Press key **E** → Display e. g. **Skn 01047543** Press key **P** twice → Display **4000 Ab320A** See instruction manual for control display example.						
180	rd	Number of reversing increments	degrees	359	0	175	*)	D/D
181	drd	Switch-on delay of reverse motor rotation	ms	990	0	10	*)	D/D
182	Frd	Reverse motor rotation On/Off		1	0	0	*)	D/D
183	FFm	Disabling of flip-flop functions at the seam end 0 = Flip-flop 1 (M6) and flip-flop 2 (M10) not disabled at the seam end 1 = Flip-flop 1 (M6) disabled at the seam end 2 = Flip-flop 2 (M10) disabled at the seam end 3 = Flip-flop 1 (M6) and flip-flop 2 (M10) disabled at the seam end		3	0	0		D/D
184	c6	Number of run-out stitches when unlocking the chain	stitches	254	0	20	*)	D/D
185	chP	Stitch counting high lift for walking foot	stitches	254	0	0		D/D
186	FFi	Function "speed limitation n11" 0 = Speed limitation n11 On, when signal M10 is On. Speed limitation n11 Off, when signal M10 is Off. 1 = Speed limitation n11 Off, when signal M10 is On. Speed limitation n11 On, when signal M10 is Off.		1	0	0	*)	D/D
187	FFo	Function of signal M10 after "power On" (flip-flop 2) on socket ST2/29 0 = Signal M10 Off / speed limitation n11 according to setting of parameter 186 1 = Signal M10 On / speed limitation n11 according to setting of parameter 186		1	0	0	*)	D/D
188	hP	Minimum speed level for high lift for walking foot Maximum speed level for high lift for walking foot Assignment of maximum speed (parameter 111) and minimum speed (parameter 117) to the 21 speed levels depending on high lift. **Display example:** **2740 05 11 19** 05 = Display of the level up to which the maximum speed is effective. 19 = Display of the level up to which the minimum speed is effective. 11 = Display of the speed level depending on high lift set on the potentiometer. 2740 = Corresponding speed **See instruction manual on how to change the setting!**		21 21	1 1			D/D D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!

Technician Level

Code no. 190 with control operation / Code no. 1907 with control panel operation

Parameter		Designation	Unit	max	min	Preset		Ind.

190	MEK	Function "unlock the chain" in modes 5, 6, 7 and 16 (parameter 290)
		0 = Unlocking the chain Off
		1 = Unlocking the chain manually (with pedal in pos. –2 without cutting at the seam end)
		2 = Unlocking the chain automatically
		   - by means of light barrier or
		   - pedal in pos. –2 (parameter 019) without cutting at the seam end
		3 = Unlocking the chain automatically
		   - by means of light barrier or
		   - pedal in pos. –2 (parameter 019) with cutting and run-out stitches (parameter 184) at the seam end, then unlocking the chain (only if parameter 290 = 7)
		4 = Unlocking the chain only with pedal in pos. –2. No unlocking the chain with seam end by means of light barrier, cutting and run-out stitches.
				4	0	1	*)	D/D

191	MHE	Seam end in the overlock mode by end count c2 or c4 0 = Seam end after count c4 – tape cutter 1 = Seam end after count c2 – chain suction		1	0	0		D/D
192	PLS	Speed of the light barrier compensating stitches 0 = Speed n5 after light barrier sensing 1 = Speed pedal controlled		1	0	0	*)	D/D
193	kSL	Enable chain suction signal and thread tension release 0 = Thread tension release and chain suction after the light barrier compensating stitches 1 = Chain suction from light barrier uncovered onwards and thread tension release after the light barrier compensating stitches		1	0	0		D/D
194	Stb	Function "blow fabric onto stack" (only if parameter 290 = 16) 0 = Blow fabric onto stack at the seam end 1 = Blow fabric onto stack from light barrier uncovered onwards		1	0	0	*)	D/D
195	LSc	Stitches for light barrier monitoring (light barrier monitoring is off, when set to "0").	stitches	2550 **)	0	0		D/D

196	StL	Function "stitch lock" (parameter 290 = 21)
		0 = Stitch lock Off
		   Output ST2/34 (STV) = Stitch condensing
		1 = Stitch lock On
		   Output ST2/28 (M2) = Stitch condensing
		   Output ST2/34 (STV) = Stitch lock
		Attention! Upon switching the parameter from 0 to 1 or vice versa, the output function changes accordingly!
				1	0	1	*)	D/D

197	dr°	Stop for thread trimming depending on angle	degrees	720	0	0	*)	D/D
198	SAk	Functions with chainstitch machines e. g. bag sewing machine (parameter 290 = 5) 0 = Function "thread trimming" or "hot thread chain cutting" and sewing foot lift using the pedal. 1 = Function "thread trimming" or "hot thread chain cutting" by means of knee switch and sewing foot lift using the pedal. 2 = Function "thread trimming" or "hot thread chain cutting" using the pedal and sewing foot lift by means of knee switch.		2	0	0		D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!
**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Technician Level

Code no.   190 with control operation / Code no.   1907 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
199 FSn	0 = Thread tension release On at the seam end until pedal in pos. 0 (neutral). 1 = Thread tension release On at the seam end or at the start of the seam. 2 = As with setting 1, but thread tension release is enabled immediately after "power on". This parameter is effective only in the overlock mode!		2	0	0 *)	D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!

9.4 Supplier Level

Code no. 311 with control operation / Code no. 3112 with control panel operation

Parameter		Designation	Unit	max	min	Preset	Ind.
200	t1	Delay until speed release after start backtack	ms	500	0	100 *)	D/D
201	t2	Sewing foot lift switch-on delay with half heelback	ms	500	20	80 *)	D/D
202	t3	Start delay after disabling the sewing foot lift signal	ms	500	0	50 *)	D/D
203	t4	Time of full power of sewing foot lifting	ms	600	0	500 *)	D/D
204	t5	Holding power for sewing foot lifting 1...100% 1% ➔ low holding power 100% ➔ high holding power	%	pa. 254	1	40 *)	D/D
205	t6	Thread wiper time	ms	2550 **)	0	120 *)	D/D
206	t7	Delay from end of thread wiper until sewing foot lifting On	ms	800	0	40 *)	D/D
207	br1	Braking effect when modifying the preset value £ 4 stages (indicated values only with transmission ratio 1:1) **Values with the AB220A.... / FP220A.... controls** **Values with the AB320A.... / FP320A.... controls**		55 55	1 1	15 20	D D
208	br2	Braking effect when modifying the preset value ³ 5 stages (indicated values only with transmission ratio 1:1) **Values with the AB220A.... / FP220A.... controls** **Values with the AB320A.... / FP320A.... controls**		55 55	1 1	35 30	D D
209	dFw	Thread wiper start delay	ms	2550 **)	0	0 *)	D/D
210	tSr	Stop time for switching the stitch regulator in the ornamental backtack	ms	500	0	140	D/D
211	tFL	Sewing foot lift switch-on delay with thread wiper off	ms	500	0	60 *)	D/D
212	t10	Time of full power of backtacking or thread trimmer forward	ms	600	0	500	D/D
213	t11	Holding power for backtacking or thread trimmer backward 1...100% 1% ➔ low holding power 100% ➔ high holding power	%	pa. 255	1	40 *)	D/D
214	rAt	No function		160	040	080	D/D
217	Sr	Number of operating hours before service in steps of 10 (service function disabled if set at "0").	hours	99999 **)	00000	00000	D/D
219	br3	Braking power at stop of the drive **Values with the AB221A control** **Values with the AB321A control**		55 55	1 1	10 10	D D
220	ALF	Accelerating power of the drive (indicated values only with transmission ratio 1:1) **Values with the AB221A control** **Values with the AB321A control**		55 55	1 1	10 10	D D
221	dGn	Speed gate 1	RPM	990 **)	50	100	D/D
222	tGn	Speed gate damping period (effective only if parameter 224 = 0)	ms	990	0	20	D/D
223	dG2	Speed gate 2	RPM	6500 **)	200	600	D/D
224	dGF	Speed gate 2 On/Off		1	0	1	D/D
225	br4	Setting the braking curve for the light barrier and machine run blockage (values only with transmission ratio 1:1) **Values with the AB221A control** **Values with the AB321A control**		55 55	1 1	55 55	D D
231	Sn1	Execution of the first stitch after Power On at positioning speed		1	0	0 *)	D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!
**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

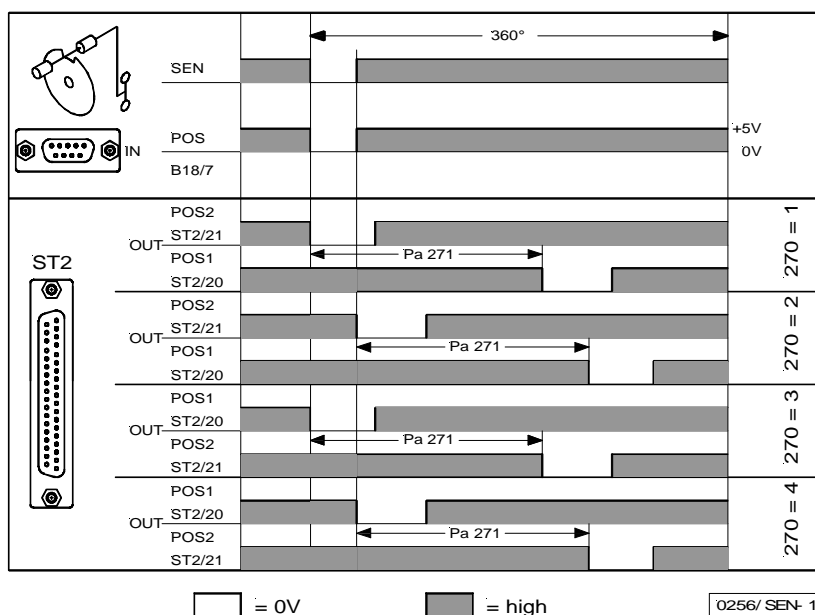| Parameter		Designation	Unit	max	min	Preset	Ind.
232	USS	Overlock with fast scissors On/Off 0 = Tape cutter 1 = Fast scissors (set parameter 282 = 0)		1	0	0	D/D

234	PdO	New start after machine run blockage
		0 = New start after disabling machine run
		          blockage without influence by the pedal
		          (e. g. with automats)
		1 = New start after disabling machine run
		          blockage only if pedal in pos. 0
				1	0	1	D/D

235	bkS	Braking curve in the overlock mode On/Off 0 = Braking curve Off 1 = Braking curve On for precise stop upon chain suction at the seam end		1	0	0	D/D
236	FLP	0 = Sewing foot lift possible in all positions 1 = Sewing foot lift possible in position 2 2 = Sewing foot lift at the seam end stored with pedal backward. Storing undone with pedal slightly forward.		2	0	0	D/D
237	tkS	Switch-off delay for chain suction at the seam end, if parameter 022 = 2.	ms	2550 **)	0	0	D/D
238	EnP	Software debouncing for all inputs: 0 = No debouncing 1 = With debouncing		1	0	1	D/D
239	FEL	Selection of the input function on socket B18/5 0 = Light barrier function, if 009 = 1 All other functions as with parameter 240.		76	0	0	D/D

240	in1	Selection of the input functions on socket ST2/7
		for input 1
		0 = No function
		1 = Needle up/down
		2 = Needle up
		3 = Single stitch (basting stitch)
		4 = Full stitch
		5 = Needle to position 2
		6 = Machine run blockage effective with open
		            contact
		7 = Machine run blockage effective with closed
		            contact
		8 = Machine run blockage unpositioned effective
		            with open contact
		9 = Machine run blockage unpositioned effective
		            with closed contact
		10 = Automatic speed n12 without pedal (N.O. contact)
		11 = Limited speed n12 pedal controlled
		            (see parameter 266)
		12 = Sewing foot lifting with pedal in position 0
		            (neutral)
		13 = High lift for walking foot with speed limitation n10
		            (operational mode not stored)
		14 = High lift for walking foot (flip-flop 1) with speed
		            limitation n10. Set parameter 137 to 1.
		15 = Tape cutter / fast scissors, function only in
		            chainstitch and overlock mode. Set parameter
		            137 to 1.
		16 = Intermediate backtack / intermediate stitch
		            condensing
		17 = Stitch regulator suppression / recall
		18 = Unlocking the chain, can be activated by
		            keystroke, but will be executed only at the
		            seam end
				76	0	0 *)	D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!
**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
	19 = Reset bobbin thread monitor if parameter 030 = >0					
	20 = Handwheel running in the direction of rotation according to the setting of parameter 161					
	21 = Handwheel running in the opposite direction of rotation according to the setting of parameter 161					
	22 = Speed limitation n11 (flip-flop 2). Output ST2/29 is enabled according to setting of parameter 186					
	23 = No function					
	24 = Needle to position 2 (see instruction manual)					
	25 = Speed limitation with ext. potentiometer On/Off (see parameter 126)					
	26 = Manual stacker					
	27 = Unlocking the chain, function is performed upon pressing the key					
	28 = External light barrier (according to setting of parameter 131)					
	29 = "Hemmer foot" signal Off (see parameter 296), function effective only in the seam					
	30 = High lift for walking foot, if sewing foot is On					
	31 = Function "speed limitation bit0" (speed n11)					
	32 = Function "speed limitation bit1" (speed n10) (bit0 + bit1 = speed n9).					
	33 = Speed n9 pedal controlled					
	34 = Automatic speed n9 can be suspended by pressing the pedal to pos. 0 (neutral)					
	35 = Automatic speed n9 can be interrupted by pressing the pedal to pos. -2					
	36 = Automatic speed n9 without pedal					
	37 = Speed n12 pedal controlled (break contact)					
	38 = Automatic speed n12 without pedal (break contact [N.C.])					
	39 = Switch to the next pattern in TEACH IN					
	40 = Switch back to the previous pattern in TEACH IN					
	41 = Tape cutting only at machine standstill					
	42 = Enable hot thread chain cutting or sewing foot lifting. Function effective only in the chain stitch mode.					
	43 = No function					
	44 = Function like pressing the pedal to pos. -2					
	45 = Positioned stop, machine run blockage and sewing foot lifting					
	46..47 = No function					
	48 = Signal A1 is issued					
	49 = Signal A1 switchable as flip-flop					
	50 = No function					
	51 = Signal A2 is issued					
	52 = Signal A2 switchable as flip-flop					
	53 = No function					
	54 = Function like pressing the pedal to step 12. If start backtack or softstart is enabled, it will be performed.					
	55 = Reversal of the direction of rotation					
	56 = No function					
	57 = Input for Juki bobbin thread monitor. Select operating mode using parameter 035.					
	58..65 = No function					
	66 = Thread trimming is suppressed					
	67 = Thread trimming and backtacking are suppressed					D/D
	68 = Interruption of seam in TEACH IN and switch to next seam					
	69 = Interruption of seam in TEACH IN and switch to preceding seam					D/D

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

Parameter		Designation	Unit	max	min	Preset		Ind.
		70 = No function						D/D
		71 = Preparation for backlatch function						D/D
		76 = Intermediate backtack / single stitch (correction sewing), (mode 31)						D/D
241	in2	**Selection of input function on socket ST2/11 for input 2** 0 = No function All other functions of the keys as with parameter 240		76	0	0	*)	D/D
242	in3	**Selection of input function on socket ST2/6 for input 3** 0 = No function All other functions of the keys as with parameter 240		76	0	0	*)	D/D
243	in4	**Selection of input function on socket ST2/8 for input 4** 0 = No function All other functions of the keys as with parameter 240		76	0	0	*)	D/D
244	in5	**Selection of input function on socket ST2/5 for input 5** 0 = No function All other functions of the keys as with parameter 240		76	0	0	*)	D/D
245	in6	**Selection of input function on socket ST2/12 for input 6** 0 = No function All other functions of the keys as with parameter 240		76	0	0	*)	D/D
246	in7	**Selection of input function on socket ST2/9 for input 7** 0 = No function All other functions of the keys as with parameter 240		76	0	0	*)	D/D
247	in8	**Selection of input function on socket ST2/10 for input 8** 0 = No function All other functions of the keys as with parameter 240		76	0	0	*)	D/D
248	in9	**Selection of input function on socket ST2/13 for input 9** 0 = No function All other functions of the keys as with parameter 240		76	0	0	*)	D/D
249	i10	**Selection of input function on socket ST2/14 for input 10** 0 = No function All other functions of the keys as with parameter 240		76	0	0	*)	D/D
250	iFA	Thread trimmer activation angle	degrees	359	0	180	*)	D/D
251	FSA	Switch-off delay of thread tension release	ms	990	0	50	*)	D/D
252	FSE	Switch-on delay angle of thread tension release	degrees	359	0	0	*)	D/D
253	tFA	Stop time for thread trimmer	ms	500 **)	0	70	*)	D/D
254	EF-	Upper limit (pa. 204) duty ratio for sewing foot lift 1...100	%	100	1	100	*)	D/D
255	EV-	Upper limit (pa. 213) duty ratio for backtacking/ thread trimmer backward 1...100	%	100	1	100	*)	D/D
256	kt6	Delay time of output VR (chain suction), (function only if parameter 290 = 15)	ms	2550 **)	0	250		D/D
257	c7	Start counting until tape cutter M4 On (function only if parameter 290 = 15)	stitches	254	0	5		D/D
258	c8	End counting until tape cutter M4 On (function only if parameter 290 = 15)	stitches	254	0	15		D/D
259	FAE	Switch-on delay angle of the thread trimmer	degrees	359	0	0	*)	D/D
260	ihr	Handwheel increments carried out when the key is pressed once (in1...i10)	incr.	500	0	10	*)	D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!
**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

Parameter		Designation	Unit	max		min	Preset		Ind.
261	nhr	Handwheel speed	RPM	150	**)	30	50		D/D
262	dhr	Delay time until the key is pressed down causing the handwheel to rotate continuously (in1...i10). Pressing the key briefly < preset value of parameter 262: increments set by means of parameter 260 are carried out. Keeping the key pressed down > preset value of parameter 262: handwheel rotates continuously.	ms	2550	**)	0	200	*)	D/D
263	ihP	0 = Signal "high lift for walking foot" (M6), when key is closed. 1 = Signal "high lift for walking foot" (M6), when key is open. (Function only if parameter 137 = 1)		1		0	0		D/D
264	iS1	0 = Signal "manual stacker" (M7), when key is closed. 1 = Signal "manual stacker" (M7), when key is open. (Function in all modes except mode 16)		1		0	0		D/D
265	ktS	ON period of manual stacker (M7)	ms	2550	**)	0	500		D/D
266	inr	0 = Limited speed n12 pedal controlled, when key is closed. 1 = Limited speed n12 pedal controlled, when key is open. (Function if parameters 240...249 = 11)		1		0	0		D/D
267	Abc	**Overlock mode:** If the light barrier is uncovered during start counts, these start counts will be suspended and the seam end initiated.		1		0	0		D/D
269	PSv	Positioning shift	degrees	100		0	30	*)	D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!
**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

Parameter		Designation	Unit	max	min	Preset		Ind.
270	PGm	Connection of a sensor e. g. light barrier sensor to light barrier socket B18/7. Selection of the desired function! 0 = The positions are generated by means of the transmitter incorporated in the motor and can be set by means of parameter 171. 1 = Setting the sensor to position 2. Set position 1 using parameter 271, starting from leading edge position 2. 2 = Setting the sensor to position 2. Set position 1 using parameter 271, starting from trailing edge position 2. 3 = Setting the sensor to position 1. Set position 2 using parameter 271, starting from leading edge position 1. 4 = Setting the sensor to position 1. Set position 2 using parameter 271, starting from trailing edge position 1. 5 = No position sensor available. The drive stops unpositioned. The thread trimmer function is suppressed with this setting. 6 = The positions are determined by preset values. If necessary, the reference position must be set and the position angle preset values corrected.		6	0	0	*)	D/D D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!

Supplier Level

Code no. 311 with control operation / Code no. 3112 with control panel operation

Parameter		Designation	Unit	max	min	Preset		Ind.

270	PGm	Connection of a sensor e. g. light barrier sensor to light barrier socket B18/7. Selection of the desired function!
		 0 = Function as in table on previous page!
		 1 = Setting the sensor to position 2.
		   Set position 1 using parameter 271, starting from trailing edge position 2.
		 2 = Setting the sensor to position 2.
		   Set position 1 using parameter 271, starting from leading edge position 2.
		 3 = Setting the sensor to position 1.
		   Set position 2 using parameter 271, starting from trailing edge position 1.
		 4 = Setting the sensor to position 1.
		   Set position 2 using parameter 271, starting from leading edge position 1.
		 5 = No position sensor available. The drive stops unpositioned. The thread trimmer function is suppressed with this setting.
		 6 = The positions are determined by preset values.
		   If necessary, the reference position must be set and the position angle preset values corrected.
				6	0	0	*)	D/D
								
								 D/D

= 0V   = high   0256/ SEN- 2

Parameter		Designation	Unit	max		min	Preset		Ind.
271	PGr	Number of angular degrees after the sensor position on the machine handwheel	degrees	255		0	180	*)	A/A/A/A
272	trr	Transmission ratio between motor shaft and machine shaft (calculation formula see instruction manual!) **The transmission ratio should be determined and indicated as precisely as possible!**		255		015	100	*)	A/A/A/A
273	ASi	Signals M8, M9, M10 On/Off (0 = Off, 1 = On)		1		0	0		A/A/A/A
274	Ad1	Delay time of signal M8 at the start of the seam	ms	2550	**)	0	40	*)	A/A/A/A
275	At1	ON period of signal M8 at the start of the seam	ms	2550	**)	0	150	*)	A/A/A/A
276	Ad2	Delay time of signal M9 at the start of the seam	ms	2550	**)	0	50		A/A/A/A
277	At2	ON period of signal M9 at the start of the seam	ms	2550	**)	0	60		A/A/A/A
278	Ad3	Delay time of signal M10 at the start of the seam	ms	2550	**)	0	40		A/A/A/A
279	At3	ON period of signal M10 at the start of the seam	ms	2550	**)	0	350		A/A/A/A

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!
**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Supplier Level

Code no. 311 with control operation / Code no. 3112 with control panel operation

Parameter		Designation	Unit	max		min	Preset		Ind.
280	kd1	Delay time output M1	ms	2550	**)	0	0	*)	D/D
281	kt1	ON period output M1	ms	2550	**)	0	100	*)	D/D
282	kd2	Delay time output M2	ms	2550	**)	0	100	*)	D/D
283	kt2	ON period output M2	ms	2550	**)	0	100	*)	D/D
284	kd3	Delay time output M3	ms	2550	**)	0	200	*)	D/D
285	kt3	ON period output M3	ms	2550	**)	0	100	*)	D/D
286	kd4	Delay time output M4	ms	2550	**)	0	300	*)	D/D
287	kt4	ON period output M4	ms	2550	**)	0	100	*)	D/D
288	kdF	Delay time until sewing foot On	ms	2550	**)	0	380	*)	D/D
289	kt5	ON period output M7	ms	2550	**)	0	1000		D/D
290	FAM	**0** = **Lockstitch mode:** (FA1, FA2, FA3, FA1+FA2): e. g. Brother Dürkopp Adler, Mitsubishi, Pfaff, Toyota »Slide-in strip for V810 and V820 = 1« **2** = **Lockstitch mode:** e. g. Singer (212 UTT) »Slide-in strip for V810 and V820 = 1« **3...=** **Lockstitch mode:** e. g. Dürkopp Adler (models 767, N291) »Slide-in strip for V810 and V820 = 1« **4** = **Chainstitch mode:** e. g. (US80A) »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3« **5** = **Chainstitch mode** in general**:** M1, M2, M3 and M4 parallel sequence »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3« **6** = **Chainstitch mode** with **tape cutter** and/or **fast scissors** and **M1 / M2** at the seam end »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3« **7** = **Overlock mode:** e. g. (AC62AV1461) »Slide-in strip for V810 = 7« »Slide-in strip for V820 = 5« **8** = **Backlatch mode:** Pegasus »Slide-in strip for V810 = 7« »Slide-in strip for V820 = 5« **9** = **Backlatch mode:** Yamato »Slide-in strip for V810 = 7« »Slide-in strip for V820 = 5« **10** = **Lockstitch mode:** Union Special (63900AMZ »replacement for US80A«) and on Refrey lockstitch machines »Slide-in strip for V810 and V820 = 1« **13** = **Lockstitch mode:** Pfaff (1425, 1525) »Slide-in strip for V810 and V820 = 1« **14** = **Lockstitch mode:** Juki (5550-6, 5550-7) »Slide-in strip for V810 and V820 = 1« **15** = **Backlatch mode:** Pegasus (SSC100) »Slide-in strip for V810 = 7« »Slide-in strip for V820 = 5« **16** = **Overlock mode:** feed-off-the-arm machines e. g. Yamato (FD62) »Slide-in strip for V820 = 7« **17** = **Chainstitch mode:** Pegasus (stitch lock) »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3« **20** = **Lockstitch mode:** Juki (LU1510-7 /DNU1541-7) »Slide-in strip for V810 and V820 = 1«		32		0	5		D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!

**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

Parameter		Designation	Unit	max	min	Preset	Ind.
	21 =	**Chainstitch mode with stitch lock:** Yamato (VG2730-156M) »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3«					
	22 =	**Lockstitch mode:** Brother (B-891) »Slide-in strip for V810 and V820 = 1«					
	23 =	**Lockstitch mode:** Dürkopp Adler (271...275) »Slide-in strip for V810 and V820 = 1«					
	24 =	**Chainstitch mode:** Pegasus (MHG-100)					
	25 =	**Lockstitch mode:** Juki (LU2210/LU2260) »Slide-in strip for V810 and V820 = 1«					
	26 =	**Lockstitch mode:** Jentschmann »Slide-in strip for V810 and V820 = 1«					
	27 =	**Lockstitch mode:** ISM, functions as with mode 0, but different preset values. »Slide-in strip for V810 and V820 = 1«					
	28 =	**Overlock mode:** Altin »Slide-in strip for V810 = 1« »Slide-in strip for V820 = 11«					D/D
	30 =	**Lockstitch mode:** Juki LU1521N-7 with short trimmer »Slide-in strip for V810 = 1« »Slide-in strip for V820 = 1«					D/D
	31 =	**Lockstitch mode:** Brother »Slide-in strip for V810 = 9« »Slide-in strip for V820 = 12«					D/D
	32 =	**Chainstitch mode:** Brother »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3« Modes 1, 11, 12, 18, 19 are selectable, but their functions correspond to mode 0!					D/D

> **Note**
> When selecting the trimming mode by means of parameter 290, the connected V810 or V820 control panel is automatically sensed and the corresponding slide-in strip number is selected by means of parameter 291 and 292, respectively. Should a different strip be inserted, its number can be set by means of parameter 291 and 292, respectively, after having selected the trimming mode.

Parameter		Designation	Unit	max	min	Preset	Ind.
291	810	Select slide-in strip number for the V810 control panel (illustration see chapter "Slide-in Strips for the V810/V820 Control Panels) At setting **0**, keys 1…4 are disabled.		9	0	5 *)	D/D
292	820	Select slide-in strip number for the V820 control panel (illustration see chapter "Slide-in Strips for the V810/V820 Control Panels) At setting **0**, keys 1…0 are disabled.		12	0	3 *)	D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

Parameter		Designation	Unit	max	min	Preset		Ind.
293	tF1	**Selection of the input function by means of key (A) "F1" on the V810/V820 control panel** 0 = Key F1 is disabled 1 = Needle up/down 2 = Needle up 3 = Single stitch (basting stitch) 4 = Full stitch 5 = Needle to position 2 6...12 = No function 13 = High lift for walking foot with speed limitation n10 (operational mode not stored) 14 = High lift for walking foot with speed limitation n10 (operational mode stored) 15 = Tape cutter / fast scissors (in chainstitch and overlock mode) 16 = Intermediate backtack/intermediate stitch condensing 17 = Stitch regulator suppression / recall 18 = No function 19 = Reset bobbin thread monitor if parameter 030 = >0 20..68 = No function 69 = Return to last seam (TEACH IN) 70 = No function 71 = Preparation for backlatch in mode 28 73..74 = No function		74	0	17	*)	D/D
294	tF2	**Selection of the input function by means of key (B) "F2" on the V810/V820 control panel** Functions of the key as with parameter 293, but at setting **0** key F2 is disabled.		74	0	1	*)	D/D
295	nAM	Switch proximity switches for inputs in2, in7, in8, in9		1	0	0		D/D
296	M08	Functions of signal M8 0 = Signal M8 Off 1 = Signal **hemmer foot On** at the start of the seam with **pedal in pos. -1** or **–2** and in the seam with **machine running** 2 = Signal **hemmer foot On** at the start of the seam with **pedal in pos. -1** or **–2** and remains active in the seam 3 = Signal M8 as **center cutter** 4 = Signal M8 with needle up / down 5 = Signal M8 alternating with M3 with "fast scissors" on overlock machines in mode 16, if parameter 232=1 has been selected		5	0	0	*)	D/D

*)   Depending on the selected mode. See table at the beginning of the List of Parameters!

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

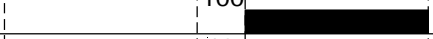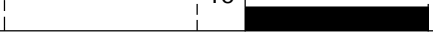| Parameter		Designation	Unit	max	min	Preset	Ind.
297	M11	Functions of signal M11 0 = Function according to setting of parameter 290. 1 = Signal M11 is switched on whenever the light barrier is uncovered (pa. 131 = 1) or covered (pa. 131 = 0) 2 = Signal M11 is switched on whenever the light barrier is covered (pa. 131 = 1) or uncovered (pa. 131 = 0) 3 = Signal M11 is switched on only after light barrier uncovered and/or covered until seam end 4 = Signal M11 is switched on as with setting 3. Signal M5 (machine running), however, is switched off while signal M11 is issued. When signal M11 is issued, signal M6 (machine at standstill) is also immediately issued. 5 = Signal M11 is switched on from "light barrier sensing", "pedal in pos. –2" or "'hemmer foot signal' key off" onwards. 6 = Signal M11 is On, when the key on input in 2 is open. Signal M11 is switched off after the section set by means of parameter 007 has been executed, when the key on input in2 is closed. At drive standstill, signal M11 is switched off immediately. 7 = Signal M11 is issued when the operating hours counter reading (Pa. 177) has reached the value of service hours monitoring (Pa. 217). 8 = Signal M11is issued when machine run blockage is active.		8	0	0	D/D
298	nSo	Backtack synchronization On/Off		1	0	0	D/D
299	nrS	Backtack synchronization speed	RPM	3000 **)	200	400	D/D
300	AA1	Selectable power transistors for signal A1 0 = No function 1 = Signal on output M1 2 = Signal on output M2 3 = Signal on output M3 4 = Signal on output M4 5 = Signal on output M5 6 = Signal on output M6 7 = Signal on output M7 8 = Signal on output M8 9 = Signal on output M9 10 = Signal on output M10 11 = Signal on output M11 12 = Signal on output VR		12	0	0	D/D
301	So1	Issue signal A1 0 = Signal until seam end (according to setting of parameter 320) 1 = Signal over time 2 = Signal until seam end and drive stops 3 = Signal during stitch counting (according to setting of parameter 309) 4 = Signal A1 as puller function		4	0	0	D/D
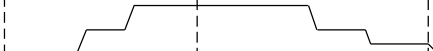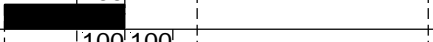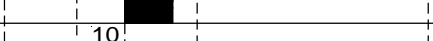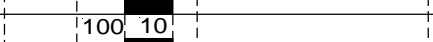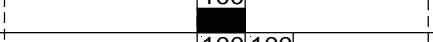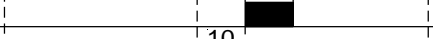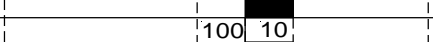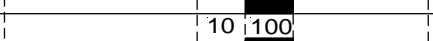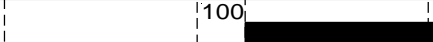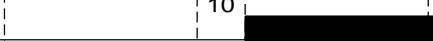
**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

Parameter		Designation	Unit	max	min	Preset	Ind.
302	tr1	Starting point for signal A1 0 = Start at the beginning of the seam 1 = Start of the signal triggered by light barrier sensing 2 = Start of the signal when the drive stops at the seam end 3 = Start from light barrier covered onwards at the beginning of the seam 4 = Signal A1 switchable only manually		4	0	0	D/D
303	do1	Delay of signal A1 0 = No delay until signal On 1 = Delay over time until signal On 2 = Delay over stitches until signal On		2	0	1	D/D
304	dt1	Delay time until signal A1 On	ms	2550 **)	0	0	D/D
305	St1	ON period of signal A1	ms	2550 **)	0	0	D/D
306	nA1	Speed mode when signal A1 is On 0 = Pedal controlled speed 1 = Limited speed n9 2 = Limited speed n11		2	0	0	D/D
307	A1	Signal A1 On/Off		1	0	0	D/D
308	dA1	Stitches delaying signal A1	stitches	999	0	0	D/D
309	cA1	Stitch counting during signal A1	stitches	999	0	0	D/D
310	AA2	Selectable power transistors for signal A2 0 = No function 1 = Signal on output M1 2 = Signal on output M2 3 = Signal on output M3 4 = Signal on output M4 5 = Signal on output M5 6 = Signal on output M6 7 = Signal on output M7 8 = Signal on output M8 9 = Signal on output M9 10 = Signal on output M10 11 = Signal on output M11 12 = Signal on output VR		12	0	0	D/D
311	So2	Issue signal A2 0 = Signal until seam end (according to setting of parameter 320) 1 = Signal over time 2 = Signal until seam end and drive stops 3 = Signal during stitch counting (according to setting of parameter 319) 4 = Signal A2 as puller function		4	0	0	D/D
312	tr2	Starting point for signal A2 0 = Start at the beginning of the seam 1 = Start of the signal triggered by light barrier sensing 2 = Start of the signal when the drive stops at the seam end 3 = Start from light barrier covered onwards at the beginning of the seam 4 = Signal A2 switchable only manually		4	0	0	D/D
313	do2	Delay of signal A2 0 = No delay until signal On 1 = Delay over time until signal On 2 = Delay over stitches until signal On		2	0	1	D/D
314	dt2	Delay time until signal A2 On	ms	2550 **)	0	0	D/D
315	St2	ON period of signal A2	ms	2550 **)	0	0	D/D

**)   When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

A1	301	302	303	304 [ms]	305 [ms]	308 [St]	309 [St]	Diagram
A2	311	312	313	314 [ms]	315 [ms]	318 [St]	319 [St]	NA ... LS-D ... NE FA-E P=0
	0	0	0	0	0	0	0	1)
	0	0	0	0	0	0	0	2)
	1	0	0	0	100	0	0	
	1	0	1	100	100	0	0	
	3	0	0	0	0	0	10	
	3	0	2	0	0	10	10	
	3	0	1	100	0	0	10	
	1	0	2	0	100	10	0	
	2	0	0	0	0	0	0	1)
	2	0	0	0	0	0	0	2)
	0	0	1	100	0	0	0	
	0	0	2	0	0	10	0	
	1	3	0	0	100	0	0	
	1	3	1	100	100	0	0	
	3	3	0	0	0	0	10	
	3	3	2	0	0	10	10	
	3	3	1	100	0	0	10	
	1	3	2	0	100	10	0	
	2	3	0	0	0	0	0	
	0	3	0	0	0	0	0	
	0	3	1	100	0	0	0	
	0	3	2	0	0	10	0	
	2	3	1	100	0	0	0	
	2	3	2	0	0	10	0	

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NA = Start of seam
LS = Light barrier uncovered or covered at the seam end
LS-D = Light barrier uncovered ➜ covered (parameter 131 = 1 and parameter 132 = 0)
NE = Seam end
FA-E = End thread trimming operation
P=0 = Pedal in pos. 0 (neutral)
St = Stitches

Parameter 320 = 0 ➜ Signals enabled according to setting of parameter 301/311.
Parameter 320 = 1 ➜ Signals enabled until pedal is in pos. 0 (neutral).

1)   Seam end after stitch counting or light barrier sensing
2)   Seam end after pedal in pos. –2

	Parameter							NA		LS	NE	FA-E	P=0	
A1	301	302	303	304	305	308	309							
A2	311	312	313	314 [ms]	315 [ms]	318 [St]	319 [St]							
	0	1	0	0	0	0	0							
	0	1	1	100	0	0	0			100				
	0	1	2	0	0	10	0			10				
	1	1	0	0	100	0	0			100				
	1	1	1	100	100	0	0			100	100			
	3	1	0	0	0	0	10			10				
	3	1	2	0	0	10	10			10	10			
	3	1	1	100	0	0	10			100	10			
	1	1	2	0	100	10	0			10	100			
	1	2	0	0	100	0	0				100			
	1	2	1	100	100	0	0				100	100		

0256/ BILD4

See previous page for explanation of letter symbols!

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

Parameter		Designation	Unit	max	min	Preset	Ind.
316	nA2	Speed mode when signal A2 is On 0 = Pedal controlled speed 1 = Limited speed n9 2 = Limited speed n11		2	0	0	D/D
317	A2	Signal A2 On/Off		1	0	0	D/D
318	dA2	Stitches delaying signal A2	stitches	999	0	0	D/D
319	cA2	Stitch counting during signal A2	stitches	999	0	0	D/D
320	bP0	Switch-off time of signals A1 and A2 0 = Signals effective until seam end 1 = Signals effective until pedal is in pos. 0 (neutral)		1	0	0	D/D
321	Std	Suppression of the seam when 0 stitches are set 0 = Suppression Off 1 = Suppression On		1	0	0	D/D
322	dkn	0 = Correction seam Off 1 = Correction seam On 2 = Interruption of seam or pattern by thread trimmer		2	0	0	D/D
323	FLn	0 = Sewing foot is not lifted after power On 1 = Sewing foot is lifted after power On This function is enabled only if **TEACH IN** is On		1	0	0	D/D
324	ti	0 = TEACH IN Off 1 = TEACH IN On TEACH IN programming is possible only with V820. Execution of pattern is possible without V820.		1	0	0	D/D

Supplier Level

Code no.   311 with control operation / Code no.   3112 with control panel operation

Parameter		Designation	Unit	max	min	Preset		Ind.
325	cti	Erasing all TEACH IN data - Input code number 3112 after power On - Press key E - Input parameter 325 - Press key E - Input 3112 - Press key P - The display briefly shows "deleted", and a short acoustic signal is issued - Press key P - all TEACH IN programs have been erased!						D/D
326	EPE	Disabling keys **P** and **E** on the control panels and key **P** on the control 0 = Keys P and E are Off 1 = Key P is On and key E is Off 2 = Key P is Off and key E is On 3 = Keys P and E are On		3		0 3		D/D
327	EPm	Disabling keys **+** / **-** on the control panels 0 = Keys **+** and **–** are Off 1 = Keys **+** and **–** are On		1	0	1		D/D
328	ob	Disabling keys **E**, **+**, **-** and **>>** on the control 0 = Keys **E**, **+**, **-** and **>>** are Off 1 = Keys **E**, **+**, **-** and **>>** are On		1	0	1		D/D
330	kA1	Coupled signal A1 and sewing foot lifting or backtacking 0 = Coupling off 1 = Coupling with sewing foot lifting 2 = Coupling with backtacking 3 = Coupling with sewing foot lifting and backtacking		3	0	0		D/D
331	A1I	Signal A1 inverted		1	0	0		D/D
335	kA2	Coupled signal A2 and sewing foot lifting or backtacking 0 = Coupling off 1 = Coupling with sewing foot lifting 2 = Coupling with backtacking 3 = Coupling with sewing foot lifting and backtacking		3	0	0		D/D
336	A2I	Signal A2 inverted		1	0	0		D/D
396	FSL	Speed reference setting by frequency On/Off		1	0	0		D/D
401	EEP	Immediate storage of all changed data - Input code number 3112 after power On - Press key E - Input parameter 401 - Press key E - Set display from 0 to 1 - Press key E or P - All data are stored		1	0	0		D/D
436	An2	Activation of analog input 2 (0 = inactive, 1 = active)		1	0	1		D/D
500	Sir	Recall of Fast Installation Routine (SIR) (see description on page 8!)						

10 Slide-in Strips for the V810/V820 Control Panels

Slide-in strips for the V810 control panel

Slide-in strips for the V820 control panel

Note

When changing the setting of parameters 291 / 292, the V810 / V820 functions change as well, save function keys F1 / F2 which are influenced by parameters 293 /294.

For your notes: